THE CHAUTAUQUAN.

A MONTHLY MAGAZINE DEVOTED TO THE PROMOTION OF TRUE CULTURE. ORGAN OF THE CHAUTAUQUA LITERARY AND SCIENTIFIC CIRCLE.

VOL. VII. NOVEMBER, 1886. No. 2.

REQUIRED READING FOR NOVEMBER.

STUDIES OF MOUNTAINS.

ERNEST INGERSOLL.

CHAPTER II.

VOLCANOES AND THEIR ACTION.

We have seen that in the elevation of mountain chains, fractures of great length and immeasurable depth have opened in the heat-wrenched crust of the earth. Into these cracks in all ages, has gushed up molten rock-matter to solidify between the walls as a dike, or to overflow, pouring masses of trap-rock out upon the surface, to figure, when cooled, as ranges of hills or magnificent promontories like the Palisades[1] of the Hudson, the Dalles[2] (dalz) of the Columbia, Fingal's Cave[3], and the Giant's Causeway.[4]

But the extrusion of molten rock through fissures, and its overflow and heaping up as columnar basalt or trachyte or any other form of lava (which term comprises all varieties of fused rock sent to the surface from subterranean sources), do not make a *volcano*, the origin and nature of which—as representing a most important class of mountain-building—is next to be considered.

In taking up the volcano we are attacking one of the most inscrutable problems in nature. It has been glibly solved many times,—until some hard-headed objector successfully disputed the doctrine. It would be presumption, therefore, to assert that we have yet come at the whole truth.

Certain general principles are widely accepted, nevertheless. All are now agreed that the internal heat of the planet is the prime source of volcanic energy. Were this energy merely an expression of primitive unspent heat, however, volcanoes, as the so-called "safety-valves" for the surging fiery contents of the shell of the globe, ought to have been vastly more numerous and effective in early eras than now; whereas, Geikie tells us that it may be doubted whether any of the Paleozoic volcanoes equaled in magnitude those of the Tertiary period, or whether any of the latter ever produced such stupendous changes as have been affected by modern volcanoes still active. Moreover, in place of steadily pouring forth a continuous stream of lava, diminishing in copiousness as the earth cooled, one of the most striking characteristics of all volcanic activity is its intermittency.

Chemism, pressure, friction, and various other agencies inside the earth have been adduced as causes of volcanic action. But the mere access of vast heat to the rocks underlying any part of the earth's surface, while it would melt those rocks into a lava which might be squeezed into or through fractures in the crust, would not in itself be more than a condition antecedent to volcanic action, since that action is necessarily violent, eruptive, explosive, as mere heat, however intense, never is.

There has been an explanation of this eruptibility on the part of rocks otherwise quiescent, in the statement that lavas at a high temperature remain solid under sufficient pressure, but liquefy the instant this pressure is relieved. This is a fact, and one worth recalling later; it is also a fact that the areas of volcanic turbulence are rising areas, and volcanoes are chiefly open along the main lines of mountain elevation. The argument is, that the lifting of the overlying strata has lightened the pressure upon the fervid foundation. The objector replies that this only moves the difficulty a step farther back, and asks what causes that elevation of the surface-strata over the areas in question.

Much goes to show that the two phenomena, regional uplifting and volcanic outbursts, are really associated, and due to the same influences. Captain C. E. Dutton, the latest and most earnest student of the subject, says that no theory of this cause has ever been advanced which would stand the test of criticism; but he asserts that the truth must lie in one of two propositions: either the quantity of matter, or "mass," lying within the limits of the rising area, must have been increased, or else the original mass has undergone expansion, which, in his opinion, is the more probable case.

Nevertheless one modern theory of volcanic action seems to me to offer a nearly, if not quite adequate explanation. But first let me say, that the alleged necessary association of regional uplift and volcanic action may not be so surely established as some volcanists have taught, except in this relation,—that the general elevation is an intermediate stage in the occurrence, or, as it were, a secondary cause of volcanic manifestations, permitting the forces immediately concerned in each outburst a chance to accumulate and, when the time comes, to manifest themselves.

Let us recall the facts hitherto given (Chapter I.) as to the

varying strength of the earth's crust. The weakest lines were found to be those marked by the mountain systems, and these elevations were produced by the sinking of the thicker (sea-basin) portions crowding them upward by tangential pressure. How deeply this has acted, how far beneath the surface the shrinkage of cooling has affected the rocks, or whether the warping is at an end, so far as the outer crust is concerned, we do not know; but it is indisputable that crushing and fracture, faults, upthrusts, and sinkings, amounting in known instances to ten or twelve vertical miles, have hitherto occurred. No doubt they were carried forward very slowly, but two things would certainly follow: production of great local heat by the friction of cross-fractured, and of horizontally sliding surfaces, and by the pressure and crushing of ponderous masses; and, second, a somewhat loosened condition of the substance of the crust along mountain lines, permitting air and water to percolate to greater depths there than where the uniformity of original structure had been less, or not at all, disturbed.

Now how deep can air and water penetrate? We have no means of ascertaining except by observing volcanoes. All these discharge water, often sea-water depositing sea-salt; hence water goes deep enough, at least to find their reservoirs. But always, no doubt, by the time the water has reached the reservoir it is in the condition of a vapor nearly as hot as the rock itself, which, a few miles down, is unquestionably at so high a temperature as to be plastic. No cracks in such a pasty mass would permit the entrance of water, yet its vapor could, under the hydrostatic pressure existing at those depths, be forced not only into every pore, but even between the molecules.

Water or steam consists of two gases, oxygen and hydrogen. Commingled in certain proportions they are the very antithesis of fire—water; brought together as separate gases they spontaneously ignite—spring into the hottest flame we know anything about. Tyndall[5] says the temperature of these two gases, burning together, is 8,061° C., equal to 14,541° Fahr.[6]

If we can suppose that the heat of the rocks under the pressure of great depths, is sufficient to decompose a portion of this water into its components, these two gases, thus disengaged, will instantly take fire, explode, and burn in an oxy-hydrogen flame of superlative heat. Good geologists assert that this occurs; others object that the process of convection and other limitations, would so keep down the temperature, that a degree of heat and of consequent expansibility sufficient for such outbursts as have been witnessed in Italy, Java, and among the Andes, would never be reached by the watery vapor (steam) without the help of some new factor to set into operation the tremendous forces already mustered. Such a factor may reasonably be found in electricity. There is a theory that electric currents incessantly pass into and traverse the earth, perhaps to its very core. In particular, it is known that all volcanic eruptions give out both positive and negative electricity, and are accompanied by displays of sheet and zigzag lightning, evoking subterranean as well as aërial thunders. Still more particularly, experiments prove that the making of steam in boilers is accompanied by the generation of electricity, so that we can believe the same thing would happen in steam made by natural circumstances.

From steam-generated electricity, or from that circulating in the earth, is derived a spark to decompose a part of the vapor and inflame the separated oxygen and hydrogen, by which the large proportion of unaltered water remaining would speedily be converted into saturated steam of heightening temperature and growing power. Nor does there appear any limit to the magnitude of the pressure obtainable from the crowding by heat into the cavities of the almost liquefied rock, more and more, and still more steam, always growing hotter, until the enormously high temperature due to 14,541° Fahr. has been attained. Mr. C. A. Peacock, who is a zealous advocate of the doctrine of electrified steam as the agent in volcanic action, computes that a maximum pressure of a million tons per square inch would thus be generated; but it is improbable that any such a maximum is ever needed in order to force a vent.

This explanation, calling into play saturated steam, to whose elastic force hardly any mundane limit can be set, accounts for the explosive violence of eruptions in some volcanoes, which have resisted stoutly only to be finally shattered into fragments, like Vesuvius in 1757, and Krakatoa[7] in 1883, while it accounts for tranquil outpourings, like those of Mauna Loa, on the simple supposition that the internal resistance is less; it sets aside the difficulty of intermittency, for an accumulation of force would be required after each blow-out, which would not be expected to be as regular as in the somewhat analogous case of geysers, since the explosive violence of the action (as evinced by tremendous subterranean thunders and earthquakes so deep-seated and far-reaching as to vibrate through a tenth of the whole surface of the earth) would change the conditions of the case from time to time; and, finally, it refers the whole matter to newly created instead of primitive heat, and to comprehensible agencies within the globe, acting under familiar laws, without invoking astronomical or occult assistance. I have not the space to support this brief statement by arguments; but less formidable objections can be raised against this explanation, I believe, than against any other.

Volcanoes fall into a regular system of distribution, and this system coincides with the main lines of elevation. Thus, with the exception of the inner Antilles (an-til-lēz), certain isolated islands and the Icelandic district, the Atlantic side of the world is now and has always been comparatively free from volcanic, or seismic, disturbance.

On the other hand the Pacific Ocean is encircled by a vast ring of active volcanoes. Beginning on the east side (the track has been conveniently sketched out for us by A. Geikie) we find in the Andes a series of active volcanoes, some of them the loftiest on the globe, running along the western margin of South America. This series seems continued southward into the antarctic regions, whose lavas blaze in the midst of ice. Northward it runs through Guatemala and Mexico into North America,[8] and stretches through the Aleutian Islands, forming a close-set fringe to the northern Pacific Ocean. The line is prolonged down Japan, the Formosa and Philippine islands, to the Malay Archipelago, where it divides into two branches. One of these, turning southeastward by New Guinea and the New Hebrides into New Zealand, is prolonged, but with wide gaps, across the Pacific basin in the volcanoes of the Friendly, Society, Marquesas, and Easter islands, toward the coast-line of South America, thus completing the volcanic ring. Along the center of that basin, magnificent volcanoes appear in the Sandwich Islands.

Returning to the Malay Archipelago we observe that the second branch of the volcanic line turns northwestward through Java and Sumatra, where more active, and dormant volcanoes are crowded into a shorter space than anywhere else in the world, and where the eruptions have sometimes been on such a scale as to cause the annihilation of great islands and the blowing into fine dust of lofty crater cones. This line is prolonged through the islands off the west

coast of Burmah. After a wide interval it reappears in Mantchuria, then (following the Old World axis) on the southern borders of the Caspian sea, whence it may be traced by the Greek Archipelago, Vesuvius, and the Italian islands, to the Azores, Canaries, and Cape Verde islands. But lava streams and consolidated beds of tuff or adobe or some other form of volcanic dust, may be found in almost all countries; so that if to the present long list of volcanoes one adds those which are extinct, the whole globe will be studded with them.

A volcano may not become a mountain, and hence has no place in these articles. As a fact, however, most volcanoes do, and attain to the very largest size. An eruption hurls far beyond the surface the rocks choking some old exit, or overlying a new locality of outburst, ejecting amid volumes of steam, carbonic acid gas and water, rocks, sometimes of great mass, whirling balls of liquid matter, showers of fragments, and jets of flaming lava. In some cases the whole side of a mountain is demolished, or the earth is rent by earthquake cracks; or the hardened crust in an old crater may be burst with such unspeakable violence as to be blown into almost impalpable dust and sent skyward to such a distance that it drifts in the upper air hundreds of miles, or may even encircle the globe.

At the same time the vast quantities of rocks, scoriæ, lapilli, and ashes shot out, fall back around the fountain, and form a hollow pile. Then comes the lava from the released reservoir, overflowing the crater and pouring down its slopes in fiery streams. But lava cools too quickly to flow very far; nor, as a rule, is the supply continuous for a very long time. Even though only a few days, or hours, elapse, therefore, between overflows, this is enough to form a new surface for the next lava stream or shower of ashes and stones. Thus there is heaped up, cap upon cap, a conical pile of ejected and outpoured material around the vent, which soon attains the proportions of a very symmetrical peak, the whole mass of which, meanwhile, is being gradually lifted. This is a very different agency from that described in Chapter I., yet the two methods are generally combined in producing our mountain ranges.

The bulkiest mountains in the world, and, perhaps, properly speaking, the loftiest, are heaps, almost wholly, of volcanic ejectments. Thus Mauna Loa, in Hawaii, when measured from the ocean floor is found to be 30,000 feet in height; and its submarine base measures 160 by 130 miles in breadth. This is a far bulkier mass than Everest, with its 29,000 feet above the Indian plains. Pursuing this subject briefly we find some of the highest volcanoes to be: In Alaska, Mts. St. Elias (19,000 ft.), Fairweather (15,000), according to Dall; in the United States, Tacoma or Rainier (14,644), Shasta (14,442), with several others in Oregon and Washington Territory; in Mexico are several active volcanoes, of which the highest are Popocatapetl [po-pō′kat-ä-pä-tl] (17,540 ft.), Orizaba [ō-re-thä′bä] (17,176), Toluca (16,610), and Iztaccihuatl [ēs-täk-sē-hwat′l] (15,705). Ecuador abounds in them. In its western cordillera are Iliniza [e-lē-ne′zä] (17,380 ft.), Pichincha [pē-chēn′chä] (15,924), Carihuairazo [kar-i-whā-rā′zo] (15,920), Chiles (15,960), and Cumbal (15,500). "The principal summits of Cordillera Oriental," according to the American Cyclopedia, "are Cayambe [kī-am′bä] (19,813 ft.), the only volcano on the globe immediately under the equator; Sara Urcu or Supai Urcu (17,276), thirty-five miles east of Quito, forming part of a ridge known by the name of Guamani [gwä-mä′ne]; Antisana, thirty-five miles southeast of Quito (about 19,200), Cotopaxi (about 19,500), Llanganate [lan gä-nä′te] (18,639), Tunguaragua [toon-goorä′gwa] (16,424), Altar (17,126), and Sangay (16,138)."

The culminating point of Peru is in Arequipa [ä-rā-kē′pä], where stand the volcanoes Misti (20,300 ft.), Charcani (18,000), the Pan de Azúcar (17,000), and various others. In Bolivia, however, there are several still greater heights, such as Sajama (22,350), and some of its neighbors. Still higher rise the volcanic peaks in northern Chili, culminating near Valparaiso in Aconcágua, which approaches 23,000 feet, and is the loftiest peak in the new world.

The highest volcano in Europe is Ætna (11,000 ft.), in Asia, Dem-a-vend (20,000), and in Oceanica, Mauna Loa (14,000).

WOMAN'S WORK IN MORAL REFORMS.

MARY A. LIVERMORE.

On a monument erected to Howard[1], the philanthropist, in St. Paul's Cathedral[2], it is engraven, that "the man who devotes himself to the good of mankind treads an open, but unfrequented, path to immortality."

The path of philanthropy was indeed an "unfrequented" one in Howard's time. For the civilized world was then engaged in gigantic wars, which were prolonged, until men were fighting in them, who were not born when the wars began. The misery was so vast as to be almost immitigable. The efforts of nations were expended in ravaging and destroying each other. Distrust, despair, and universal hate pervaded society. The wail of bitter poverty followed the ruinous waste of war, and the anguish of uncomforted sorrow was too great for utterance.

But the nineteenth century, which opened so inauspiciously, and was so heavily weighted with brutalizing influences, has witnessed unprecedented progress. The world has moved forward to an era when wrong and slavery are being displaced, and reason and justice are beginning to be recognized as furnishing the rule of life. Science is extending immeasurably the bounds of knowledge and power. Art is refining life, giving to it beauty and grace. Literature bears in her hands whole ages of comfort and sympathy. Industry, aided by the hundred-handed elements of nature, is increasing the world's wealth, and invention is economizing its labor.

The closing years of this wonderful century are glorified by a civilization of intense humaneness. It not only seeks to redress wrongs, and to right errors, but it penetrates to the causes that produce them, and seeks their removal, and thus inaugurates moral reforms. The barbaric spirit of war still lingers among Christian nations, but it is evident that civilized man is approaching the close of his fighting era. For war is the employment of savages; and the quarrels of nations ere long will be settled as was that of England and America, concerning the Alabama claims—peacefully, and by arbitration. Slavery, routed elsewhere from the world, sought to entrench itself in America, and for a time defied the spirit of the age. But the righteous wrath of a nation was finally roused against it, until on its swelling waves, four millions of slaves were borne to the high level of freemen. The humanity of our time outruns the demand of Howard,

and not only transforms prisons into "moral reformatories," and "schools for fallen humanity," but organizes societies for "the prevention of crime," and the "suppression of vice." It confronts the appetite of the drunkard with song and loving persuasion, and bombards legal enactment with prayer and many-voiced petitions. It sees how ignorance becomes a prey to the demagogue, strengthening his vicious rule. And knowing that a republic cannot live with an immoral and illiterate constituency behind it, raises a demand for universal, compulsory education, intellectual, industrial, moral, and religious.

This dominion of philanthropy and reform widens yearly. A strong and growing public sentiment sustains it. The leadership of the world is being taken from the hands of the brutal and low, and the race is unconsciously finding its way to a higher ideal than it has ever before known. The land is covered with a net-work of philanthropic and reformatory organizations, including more women than men, which are formed to help the unable classes, and to quicken the steps of those who lag behind in the march of civilization; while a glowing zeal for the removal of the temptations to vice, and the hindrances to right living, has developed in the hearts of many of the noblest of the race, till it has become an absorbing passion.

A glance through the directory of charitable, reformatory, and beneficent organizations of any of our large cities, fills one with hope and gratitude. For they cover every department of the world's woe and want and sin, and seek to change for the better the sad existing conditions. The system of the Associated Charities, suggested, if not originated by a woman, Octavia Hill, of England, is not often spoken of as a moral reform agency. And yet it contemplates no less a reform than the extirpation of professional beggary and pauperism, with the evils which underlie and grow out of them —indolence, improvidence, intemperance, with a loss of self-respect and self-reliance. The system has obtained a footing in many small, as well as large cities, and has secured the hearty co-operation of thousands of Christian women, whose ability to do and to give is greater than their means. "The gift of one's self is sometimes more than one's purse," and the motto of the Associated Charities is, "Not alms, but a friend."

The poor of a town or city are divided among a corps of volunteer visitors, mostly women, only a small number of cases being assigned to each, sometimes not more than one or two. The visitors are prohibited from giving alms on their own impulse, except in the rare cases of distress which are above all law. But having established friendly relations with the poor family, and won its confidence, the visitor studies the causes of its poverty, learns what its members can do, or be taught to do, and then carries sympathy, encouragement, cheerfulness, thought, and real help to its relief. It then becomes a case of the strong bearing the infirmities of the weak. A vast proportion of our fellow-beings are weak, and these the machinery of our civilization often grinds to powder. An immense number drop hopelessly to the rear in the race of life, and political economy, always harsh, and often false, ruthlessly leaves those to sink who cannot swim. Christianity demands that political economy shall take on humaneness, and the machinery of modern civilization be governed by tender regard for the feeble—and if this be not done, then the Christianity of the age proves itself to be other than the religion of Christ.

It is surprising how large a proportion are helped to self-support by the wise methods of the Associated Charities. Through the help of the friendly visitor, one member of a semi-pauperized household is taught a trade. Another is furnished with a sewing-machine or tools. Work is obtained or given, or an invalid is assisted to health. One may be dropping into drunkenness, another because of her ill-paid labor, may be perilously near exchanging it for the larger wages of shame, or the children may be learning on the street, lessons in professional beggary and vice. These three evils of city life, drunkenness, prostitution, and pauperism, the visitor combats with all the moral force and agencies at her command, conquering them if she can. I have known the *morale* of a whole neighborhood changed by the visits of two earnest women, both of whom earned their own living. Life and its hardships had taught them many a well-learned lesson. Their heart was in their work, and they clung with wise, strong grasp to the half dozen shabby families that had well-nigh demoralized the neighborhood, using every agency of uplifting and cheer, till they succeeded in placing their protégées on the solid ground of independence and self-respect.

The half-paid labor of women is a social abuse, prolific of evil. It is very rare that a woman is paid the same wages as a man, even when she does the same work, and does it as well. In Boston, there are over twenty thousand women, whose average age is about twenty-five years, who work ten hours a day, for less than an average of four dollars a week. This is exclusive of those engaged in domestic service, who number nearly sixteen thousand more. In Massachusetts, the average pay of a woman teacher is less than one-third the average pay of a man teacher. In the city of New York, one hundred twenty-five thousand working women are reported, whose average wages are no higher than those in Boston. A similar condition of things undoubtedly exists in all our large cities. Half the privations of these women can never be told. They are voiceless, powerless, and forgotten. It is easy to live honestly, orderly, and reputably, when one is in receipt of a generous and permanent income, with environments of the highest character, socially, and morally. But when a young woman is over-worked and under-paid, and her poor employment is unstable, with no home but the boarding-house or lodging-room in the great city, among strangers, without friends, position, or protection, is it a wonder that she sometimes succumbs to temptation, when it promises ease, pleasure, and companionship?

This phase of our industrial system has been developed within the last quarter of a century. It is not possible that it shall always remain as dangerous and disastrous to hosts of women as it is to-day. But while waiting for the commercial spirit to abate its greed, and for political economy to become Christianized, various institutions have been formed, chiefly by women, to meet the emergencies continually arising in this army of unpaid workers. Temporary Homes for Women offer them cheap shelter and food when out of employment, as do Employment and Relief Societies. Women's Exchanges have been opened by helpful women in nearly thirty cities, who find a sale for articles manufactured by their poorer sisters, who otherwise would have no market for their wares. The Women's Educational and Industrial Union is the name of a most beneficent organization of women, of which there are several in various cities. I have a personal acquaintance with one of the largest, in Boston, of which I am a member. Its membership numbers a thousand women, more or less, mostly from the working classes, but including also a few women of means. Its Women's Exchange sold over fifteen thousand dollars worth of articles last year, manufactured by women, battling for life at fearful odds. Its Employment Bureau finds work for hundreds of applicants yearly, in every conceivable department of industry. Its Protective Bureau furnishes legal redress,

when women are defrauded of their rightful earnings. It has recovered thousands of dollars for working women, almost never losing a case. Its reputation is so enviable, that when delinquent debtors learn that their women creditors, whom they propose to defraud, have placed their accounts in the hands of the Protective Bureau for collection, they hasten to settle them, to avoid exposure and expense. Like Davy Crockett's coon,[3] they entreat, "Don't fire! I'll come down!"

This Women's Union gives weekly lectures on hygiene, during the winter, and maintains a kind of dispensary, open every day at certain hours, for poor women, who need medical treatment and advice, but are unable to pay fees. The Women's Educational and Industrial Union numbers several accredited women physicians among its members. It has a committee who visits the sick; maintains a directory of reputable cheap boarding-houses and lodging-places; and has a Friendly Committee to look after women strangers from the country, seeking work, to advise them in trouble, and to succor them in temptation. Another of its departments ferrets out, and publishes the scoundrels who through bogus advertisements of work for women, seek to fleece them or to lure them to ruin. It is impossible to estimate the good accomplished by these Women's Educational and Industrial Unions. They are veritable breakwaters against the surging tide of social evils existing in our large cities, which engulf many weak and unprotected women, and unsuspecting girls. They prevent wrong, which is easier and nobler than to remove it when it takes a lodgment. They can be established in every city, and appeal for co-operation to every woman caring for her sisters who are less fortunate than herself. "We shall pass through this world but once. If there be any kindness we can show, or any good thing we can do to any fellow-being, let us do it now. Let us not defer, nor neglect it, for we shall not pass this way again."

There is in Boston another relief association, which should be mentioned, as an instance of what a woman can do, who loves women and desires to aid them, if she be large-hearted, upright, and sensible, even when she is poor, and lacks prestige and position. Fifteen years ago Jennie Collins was a tailoress in Boston, working for her daily bread. Feeling keenly the deprivations and misery of the large class of shop-girls who live in boarding-houses and lodging-rooms, and who have no friends in time of sickness and trouble, she appealed to her employer, a humane man, for assistance in establishing a head-quarters for them, where they could congregate for social purposes, and self-help. He did for her more than she asked, and "Boffin's Bower[4]" was established, which is now in the sixteenth year of its existence. It has exerted a marvelous influence for good over those who were ready to perish. "My experience in these rooms is simply incredible to myself," says Jennie Collins, "it can never be told: volumes would not be sufficient for the narration of peculiar individual cases, that have come to me with their puzzling and trying details, and which I have been able to relieve."

Her strong hold is the confidence reposed in her by the public, which has always responded generously to her appeals. That a poor working-woman, without position or training, should take so strong a hold of the public heart, and be able to accomplish, through its beneficence so large a work among the most unfortunate and hopeless classes, is simply a marvel. She holds a fair every fall, to obtain means for free dinners during the winter for unemployed women who pay for it in work. One winter, that of '77 and '78 she furnished eight thousand free dinners. It was an exceptionally hard winter for working women. Her name is a household word among shop-girls and poor women, who confide in her to the utmost. She advises them, assists them to carry out their plans, when they are right, finds them employment, gives them sometimes small sums of money, becomes security for them, obtains for them extension of credit, legal advice, transportation by rail, homes where they can work for board, maintains for them a free reading room, to which they flock, and again and again has stood between despairing women and prostitution and suicide —always coming off conqueror.

During the life-time of Wendell Phillips, whenever Jennie Collins failed to obtain means elsewhere, or a tragic case sought her, whose intricacies she could not fathom, and whose sorrow she could not assuage, she went to him, who was everybody's helper. Hon. Wm. I. Bowditch, of Boston, the administrator of Wendell Phillips estate, has shown me a little book with leather back and corners, in which "Ann and Wendell Phillips" recorded the money they gave away. The grand total, inclusive of large and small sums from 1845 to 1875 was $64,710. And yet neither of them was wealthy in the modern acceptation of the word. What they gave of themselves was vastly more than what they gave of their means.

I do not need here to speak of the temperance reform, now being carried on under the magnificent leadership of Frances E. Willard, who is supplemented in her work by a host of the grandest men and women on both continents. The work of the W. C. T. U. is known all over our country—we shall soon be able to say all over the world, so rapidly are its women missionaries belting the globe with their efforts. It has succeeded in thoroughly arousing the English-speaking people of the world to the ruin impending, unless the drinking habits of the nations are reformed, and the liquor traffic with its immeasurable evils subjugated, and eventually extirpated. Its forty or more departments of work afford opportunity for the exercise of every variety of talent, that women possess. Its superintendents of departments of work, its organizers, lecturers, writers, evangelists, missionaries, and practical leaders of work already number thousands, who have found the place for which they are fitted, and in helping others are enlarged and blessed themselves. Its membership is roughly estimated at two hundred thousand. But in any crisis, or pending emergency, the contagious enthusiasm of the W. C. T. U. enables it to recruit its ranks temporarily from other branches of service, when its numbers can be duplicated.

The temperance work cannot succeed without the aid of women. The world would be set back half a century, were the W. C. T. U. to disband. For drunkenness is the vice of men rather than of women, and they are, in the mass, under the dominion of appetite as women are not, and must have their help in rising above it. The last United States census shows us that there were confined in jails, prisons, and penetentiaries in 1880, fifty-eight thousand six hundred nine prisoners, of whom fifty-three thousand six hundred four were men, and five thousand five, women. The temptation of strong drink does not appeal to women, for of these convicts, eight-tenths had committed crime while intoxicated.

I have no space for the record of noble, self-denying work which is being done by Christ-like women all over the land, in the reformation of their fallen sisters. No work calls for more sacrifice, faith, and persistent, heroic effort. For the opinion of centuries falls with crushing weight upon the fallen woman, and society bands itself together against her recovery. The father runs to meet the prodigal son, calls neighbors and friends to rejoice at his return, puts shoes on his feet, a gold ring on his hand, clothes him with the best

garments, and kills for him the fatted calf. But for the prodigal daughter there is no welcome, though she beg it on her knees; shelter is given her grudgingly, and she is hidden from the friends of the family, and alluded to with bated breath, as one speaks of a noisome thing.

Necessarily, there is little publicity given to this work of rescue. Only as one engages in it, does one learn how frequently these poor women are more sinned aganst than sinning, and are betrayed to their ruin through the noblest qualities of the woman nature. Thousands of women, now leading pure and upright lives, as wives and mothers, have had a dark page of their early youth turned out of sight of a censorious and unpitying public, and have been dismissed with the injunction of Christ,—"Go and sin no more." Hundreds have been intercepted in the path of infanticide and suicide, and encouraged, and redeemed, and have become useful members of society. Fifteen years work in one of the Homes for Erring Women has given me personal knowledge of scores of such women. Dear women readers of THE CHAUTAUQUAN, do not allow yourselves to be alien or indifferent to the work of saving your unfortunate brothers or sisters! No nobler work invites you.

A few weeks since, I received a visit from my old coworker during the war, the veteran army nurse, "Mother Bickerdyke." She had spent the rainy day in searching for an old soldier, who for the last ten years has lived dissolutely, in Boston. She had visited police courts, jails, and houses of correction, and was wet, weary, and depressed. I remonstrated, "My dear friend, why do you, an old woman, at the age of seventy-three, waste yourself on such a worthless fellow as B——?" Turning to me with a flash of her blue eyes, and a straightening of the curves of her yet beautiful mouth, she gave me this rebuke. "Mary Livermore, I have a commission from the Lord God Almighty to do all I can for every miserable creature who comes in my way. He's always sure of two friends—God and me!" What if this spirit dwelt in all of us!

But women who desire to do the best and largest moral reform work must not stop with efforts for reclamation. They must aim at nothing less than the regeneration of society, and the establishing of a right public sentiment, that shall crystallize into laws synonymous with justice and protection of the weak. It is not enough that the inebriate is reformed, and the child trained in temperance principles. The causes of inebriety must be removed, and the public conscience and will educated up to the point of abolishing the liquor traffic, by prohibiting the manufacture of alcoholic drinks. We must do more than restore the fallen woman to right living and her place in society. We must work for the prevention of female immorality, by removing its inciting causes. With under-pay and over-work, the morality of women will decline, and hunger and cold, which know no law, will compel the starving, freezing woman to increase her wages by the sale of herself.

"Equal pay for equal work" should be the demand of every woman who would maintain the honor of her feebler sisters, and make the downward path difficult. The same standard of morality must be uplifted for both sexes, since this is God's standard, who knows no sex in guilt, and has not made one standard of purity for man, and another for woman. This is demanded by the White Cross movement, whose originator was Miss Ellice Hopkins of England, and whose moral reform addresses inspired the Bishop of Durham to form an organization for the promotion of individual and social purity. Is this uncongenial work? Its magnitude cannot be overstated, its scope is larger than our comprehension. Hear Miss Hopkins define it. "It is a work for the sanctity of the family—for the purity of the home—for the inviolability of marriage—for the honor of women—for the innocence of children—for the very springs of national life—for all that touches our own character to fine issues, and makes spiritual vision possible. It will be like the inflowing of a great life, lifting us out of ourselves into a purer atmosphere."

"Is there some desert, or some pathless sea,
Where thou, Great God of angels, wilt send me?
Show me the desert, Father, or the sea!
Is it thine enterprise? Great God, send me!
And though this body lie where ocean rolls,
Father, write me among all faithful souls."

SUNDAY READINGS.

SELECTED BY CHANCELLOR J. H. VINCENT, LL. D.

BE MEN.

[*November 7.*]

I. More than men you cannot be; and if you are less, your own nature will never forgive you. To be men is both your first duty and your first privilege. The great reason why you are discontented with your position and circumstances, is that you are not men in your circumstances. Were the single purpose and aim of your soul to become men, you would be conscious of the strong sympathy of all Heaven, you would inherit sovereign authority from the Brotherhood of Christ, you would have confidence towards God. Hell would tremble at your presence, and the first of the holy angels would feel themselves honored in being your servants.

II. Some quit themselves very respectably, with admirable dignity and ease, yet scarcely like men,—more like a well-bred, well-fed, polished race of princely manikins. Were there a show of them, there are few sights on earth so well worth seeing, but weighed in the balance of Divine Humanity, they are found wanting.

III. A number, whose name is legion, quit themselves like tradesmen, trade being the master, and man the servant,—trade, my lord, and man my lord's valet. The wonder is how trade acquired its supremacy. How could man come to be so deluded as to neglect himself, for the sake of minding trade? Trade is not more important than man, but man infinitely more important than trade. Man may gain by trading, and at the same time lose more than he gains. He may gain silver and gold, houses and lands, and lose spirituality, truth, and simplicity. Is not this losing by trade? He may gain the world by trading, and lose himself. Is not this losing by trade? Much trash acquired, but *the man* lost! Who can estimate the loss involved in that man's gain?

This is a trading world, but since man is the trader, he should be careful so to use trade as to become more a man thereby. He should never sell himself to the low methods of trade, for by so doing he lowers himself. If sacrifice must be made, what man, in his senses, would not rather sacrifice trade to high-toned humanity, than high-toned humanity to trade? Where is the profit of gaining in pocket,

and losing in soul? Does he not lose his labor, who gets money to put into a bag that hath holes? Man's own immortal nature is the only safe bag into which his gains can be put. Profit in trade is lawful, but as man derives his profit from his brother man, he must make a conscience of profit, or his profit will be at the expense of his own humanity. To undersell a neighbor in an article which already pays too small a profit, is dishonest. The man who is guilty of the practice not only plots a design against the trade of his neighbors, but damages the character of trade in general. He means to get on thereby, but he takes out a stone from the building of his own character. Diligence and manly skill in the management of business are commendable, but all trickery insnares the trader more than the public.

Be men! Beware of the tyranny of trade. Beware of its hold on your spirit. Let it be very much without you, that, when you have done with it, it may not leave its mark on you. Are you hunted with the idea of making your fortune by trade? Hunt the hunter out of your soul. Make to yourself the fortune of the wisest, broadest, noblest, bravest humanity that you can. Be men! Do you envy those who are rapidly outshining you in worldly circumstance and splendor? Envy them not. Compare the outside wages of slavish devotion to the world, with the essential wealth and glory of nobility in the man.

[*November 14.*]

IV. Some quit themselves as upgrown children, never as men. Their souls are never delivered from their tutors and governors. Their educational prejudices cleave to them through life. They never violate the limits within which they were taught to think. Under the authority and to the extent of their leading-strings they can go, but no further. They are men-duplicates:—Men they never become.

V. Some are little more than the parrots of their newspaper editor. From him, they receive week by week the direction, substance, and measure of their thoughts. Before he has spoken they have no opinions; when he has spoken, their opinions are coined, and immediately put into free circulation.

VI. Others quit themselves as religious machines, or as the parrots of their church or minister. Their knowledge of God, of their own souls, and of the truths of Revelation is not their knowledge. The traditions which they have received to hold, relieve them from the difficulty of acquiring a personal faith. When they speak, they speak from tradition, and not from their understanding. With all their getting, they get, not understanding, but the verdict of other men's understanding. If they hear Christ, or a Christ-like man, whom the truth has made *free*, they stumble, because he speaks not in the words of their tradition, but in the words which the fresh, living Spirit of to-day teaches. Under a truly human, unfettered liberty of speech, they know not their own doctrines. Christ certainly speaks with great force and authority, but then He speaks not as their Scribes and Pharisees speak.

VII. If you are in England, you will find multitudes on multitudes who quit themselves as Englishmen, but few who know what it is to be men. The height of their ambition is to be Englishmen. England is their greatest idea. In body and soul, in feeling, thought, and speech, the "freemen of England" are the slaves of their idol. Warm fires burn in all English homes, but a cold and rude water flows all round England, and shuts her in within herself. If mankind could give their humanity a high and sovereign dominion over their nationality, they would become true brothers, with a strong treaty of peace grounded in their spirits and flowing in their blood. But so long as high and sovereign dominion is given to nationality over humanity, brotherhood will be talked about, and peace treaties made, but the grand central law of brotherhood and peace will be distant still.

[*November 21.*]

VIII. The want of the times, the want of the whole world, is men. When will the age of men come? The age of men would be the Gospel of the Grace of God to all mankind. For nothing less than the descent of the Divine Humanity into human souls will make men. The age which is to crown all the ages has been seen in vision, and it cometh, and will come, in which the dominion, glory, and kingdom of the whole world are to be given to "One like the Son of Man." "All people, nations, and languages," long divided and distracted, "shall serve Him. His dominion is an everlasting dominion, which shall not pass away, and His kingdom, that which shall not be destroyed." The age of true humanity, or the golden age, is to come. "Come, Lord Jesus."

IX. How refreshing it would be to find even a small company of men! I do not even mean patriotic men, but men. Patriotic men of one nation will rise up against the patriotic men of another nation. Between patriotic men "there will be wars and rumors of wars;" but let the nations of the world become men, and "wars shall cease unto the end of the earth." In unity there is no war. Oh for men! men, not held by custom, nor influenced by the votes of millions, nor shut up within their nationality; but men. It would do your eyes good to see them, it would do your ears good to hear them, it would do your lungs good to breathe in their atmosphere, it would do your understanding good to be inspired with their freedom, it would do your heart good to rest in their broad charity. God's "commandment is exceeding broad."

X. Man has unknown powers; but Samson is gone to sleep in the lap of Delilah. Worldly ease and pleasure have made a prey of him. His true manhood is fallen into a deep sleep. His divine strength is gone. He is sold into captivity to his own inclinations, and they (Philistines as they are) have put out his eyes, and made him a slave to their will. It is strange, it is passing strange, that man's little world-nature should be able to captivate his great eternity-nature! The world, having subjugated the divine powers of man, is served by one who is greater than a thousand such worlds.

O men! men! you can imagine the strong man asleep in the lap of the fair Philistine. But can you imagine your own sleep in the lap of this plausible, tempting world? More delusive than sleep is that world-wakefulness, in which *the man* sleeps. Physically and psychically the man is awake, but spiritually he is in a deep sleep. His world powers are acute and active, but his God-breathed nature is sunk into profound stupor. The man is there but he is not himself. The true human power is not in him, the true human wisdom is not in him, the true human purpose is not in him. He is the world's and not God's. Till he become God's, he cannot be a *man*.

Resolve to be real men, insist upon being real. You know not to what posts God will call you when He finds you real men. There will be calm majesty and authority enough about your person and presence, to confound a whole city full of unreal men.

[*November 28.*]

XI. Be real men, and the Kingdom of Truth will honor you. Mighty powers will not only express themselves in your words and works, but hide themselves in your silence. Be real men, and even your solitude will be waited upon with scenes greater than all the theaters of Europe ever represented, or can represent. The eye of the world hath not seen, nor hath the ear heard, nor hath the world's heart conceived, what "The Spirit of Truth" will reveal to you. Men carry so much greater shows in themselves, they go not to the world's shows. Manikins go, because they are manikins, and not men. Be real men, and a sublime object will become a necessity to you. You will not be able to sell your soul for a mess of pottage. The solar system, with a baptism awaiting it in tenfold stellar brilliance and magnetic influence, might sooner be diverted from its course, than you be tempted to make this world's money, place, or pleasure, your end. The world-god will find that he must make the most of his art with others, he would lose his time with you. The Almightiness of Man, as it is in Christ, he knows, and if you become the real men of Christ, and in Christ, he will know you too, and no more think of making you his prey than of trying another battle with Michael and his angels. "Jesus I know, and Paul I know." Delight enough, honor enough, without their seeking, wait upon all real men, and will wait.

XII. "Quit you like men." The grand purpose of mortal life is to make the end. If you use wisely and well the years of your brief night-time in nature, what an end you may yet make! What a character! What an inheritance! You cannot make the end, at the end. The end will be made then. The work of the past is in you, in your being and character. You cannot enter upon eternity with any other humanity than time has formed. "The night is far spent, the day is at hand," the Great Day. "It is high time to awake out of sleep." The formative time is shortening, the time for the manifestation of what is formed is nearing. The formative process is far advanced. Death is the soul's birth, when what has been formed in secret will be shown openly.

See to it, that death, which will bring night to your outer man, be the opening of day to your inner man. Christ is the glory of God: hide Him within you, and look to the day of your death for the rising of your Sun. The life of the flesh is only possible, on the condition that the glory of the Eternal Kingdom is strongly shut out. With the ruin of your flesh, dawns the Day of days.

John Pulsford.

THE RAILWAY INDUSTRY.

PROFESSOR HENRY C. ADAMS.

It is my purpose to point out the most marked tendencies bound up in modern methods of transportation, and to suggest the true significance of railways as a factor in modern civilization. To this end it will be necessary to notice the industrial, social, and political effects of the development of the railway system, and to state a few facts pertaining to its growth, extent, and organization.

INDUSTRIAL EFFECTS OF THE RAILWAY SYSTEM.

The most important fact in connection with railways, brings to our notice the manner in which they minister to a country's wealth. That the world is growing rich, few will deny, but when asked for the secret of modern riches, it is sometimes difficult to give a satisfactory reply. The true answer, however, is readily suggested when we compare the methods of doing business at the present time with those which our forefathers adopted. Nearly everything is now done on a grand scale. Machinery is used in the stead of tools, and industrial armies have usurped the place of isolated workmen. We need not stop to inquire respecting the productive principle of united and organized labor, for it is doubtless familiar to all my readers. It is only necessary for us to notice in this connection that the development of the railway system was essential to an extended application of the principle of division of labor. This is true because labor cannot adopt the most perfect methods of organization when producing goods for a local market. Capital and machinery cannot be the most economically applied when working for limited sales. But when it is possible for the goods of one locality to depend upon purchasers in localities far distant, and when manufacturers care to regard the entire country as the market for their products, there is no limit to which the principle of division of labor may be applied, except such as exists in the nature of the business undertaken. It is the railways that give this extended market; and this is what men mean when they say that modern facilities of transportation lie at the basis of modern industrial efficiency.

Railways also have exerted a marked influence upon the prices of such commodities as come on the general market. It is hardly necessary to employ statistics for showing that prices tend to fall with cheapened transportation. This must be the case unless some form of monopoly permits individuals to reap dishonest gains in the course of their business; for the carrying of goods is properly reckoned as a process in production, and it is a permanent law of political economy that prices fall with every marked improvement by which cost is decreased. But it is equally interesting to notice that excessive fluctuations in prices are checked by the perfection of steam transportation. In a country where railways are well developed, it is easy for the shortage in one part to be supplied from the surplus in another. No locality so situated is confined to what it itself produces; its market, therefore, is not subject to what might otherwise be the excessive fluctuations of a local market. In France in the early part of this century, the quotations for wheat upon the same day in different parts of this country, have been known to vary in the ratio of forty-five to one; but since the introduction of railways the extreme variation has never exceeded the ratio of three to one. A better illustration of the regulative tendency of steam transportation is found in the figures presented in the following table, which show the average price of wheat per hec-tol'i-ter[1] in England and Prussia for the ten years preceding 1830 and the ten years preceding 1870:

	1821—1830.	1861—1870.
England,	10.25 guilders[2] . . .	8.80 guilders.
Prussia,	5.65 " . . .	7.79 "

We cannot say that this tendency toward an equalization in price set forth in the above table, is wholly due to cheap and certain transportation; but we may conclude that, since

modern commercial methods have opened up the local market, local causes can no longer dictate local prices.

It seems, then, that steam transportation, together with improved methods of collecting and transmitting industrial news, has resulted in the establishment of a world's market. The prices of each country are held steady by quotation, upon this universal market, while the prices in each locality tend to rise and fall with those of the country of which they form a part. This is chiefly important because it shows that the ordinary wants of men may be surely and easily satisfied; but it is also significant in that it has a tendency to restrict the margin of speculative profits. There is greater likelihood that competition will keep the prices of goods down to the cost of their production when buyers have access to all markets, than when obliged to purchase from a few producers.

A comparative study of the industrial history of England in the fourteenth and nineteenth centuries is a continuous illustration of this fact. In early times there was little intercourse between the various parts of England, and it was on that account found necessary to regulate the prices of goods by law; now, however, this is regarded as unnecessary. Since free commercial intercourse has been established, men feel some safety in permitting the law of supply and demand to regulate prices.

The perfection of the railway system has also greatly influenced movement in population. In agricultural countries during the first stage of their growth, this movement results in a diffused population. So long as it was necessary to depend upon water communication for the movement of heavy goods, settlements were determined by the course of rivers rather than by the character of lands. The most important question for the farmer was, how to get his product to market, not how to secure the largest possible product. But with the application of steam to inland transportation all this is changed. Pascal[3] called rivers, "roads that moved;" railways might with equal propriety be called movable rivers. It lies within the power of those who control this modern enginery of transportation to carry population where they will. Had it not been for railroads, Dakota would not today be knocking at the doors of Congress for admission as a state, and, indeed, many parts of Illinois and Iowa would be still open for settlement. It is now the fertile soils that direct the course of migration, and invite men to the establishment of homes.

But a country does not proceed very far in its development before a counter-movement sets in. As soon as manufacturing is undertaken, railways lend their influence to the growth of large cities at the expense of the country and small towns. In 1830 but one person in fourteen in the United States lived in cities containing a population of seven thousand five hundred and upward; now those living in cities number more than one-fifth of the total population. Carefully prepared statistics show that out of every one thousand added to the population of the cities of Europe, seven hundred eighty came from the country provinces. It is not claimed that railways are alone responsible for so significant a fact, but it is yet true that this tendency towards concentration of capital and men followed closely upon the appearance of steam transportation. Many regard this movement with solicitude, and all, I think, will admit that it should be considered in fashioning laws for the control of railways.

SOCIAL EFFECTS OF RAILWAYS.

Railways work out their social tendencies through the new social relations which they introduce. We cannot of course say that human nature is essentially different in the nineteenth century from what it was in the past, but it will certainly be admitted that the customary habits and ordinary thoughts of men have been modified by familiarity with steam transportation. It is more than a figure of speech to say that railways have annihilated space. Peoples of various localities and various countries mingle with a freedom formerly unknown. Under such conditions it is natural that there should spring up some degree of uniformity in the ideas entertained by the great masses of people, for their thoughts are no longer confined to what the events of a locality may suggest. New opinions also may be diffused with greater ease than formerly, for new experiences and observations which come with travel, tend to break down that unreasoning conservatism by which the crystallization of public sentiment is opposed. Current views respecting the rights of labor, for example, have changed with surprising rapidity during the last few years, a fact which may be accepted as giving support to the views expressed.

But so far as this particular question is concerned, there is another reason for the quick response of public sentiment, and one of deeper significance for the subject in hand. The greater complexity, which railways have introduced into modern society, seems to have produced a more delicate sympathy between the various parts of the social body. The old truth that man does not live unto himself alone, is forced upon the attention of every person engaged in business. This is perfectly illustrated in the results of the strike last spring upon the southwestern lines of railways. Thousands of industries, in no way connected with the quarrel, were injured by that strike, either because they were unable to secure raw material upon which to work, or because they were cut off from their usual customers. Under such conditions men are forced to inquire for the real difficulty in the case. This is the real secret of the swiftness with which the public pronounced judgment. Our limited space will not permit us to say more respecting the social effects of railways, yet enough has been said to suggest the new social problems that have been introduced. One who appreciates the subject is justified in speaking of the old society characterized by localism, and the new society that is both national and cosmopolitan in character.

This impression will be rendered more intense if we notice how the invention of railways has increased the rapidity of travel. It was regarded as a great achievement of engineering when the roadways of England and France were so perfected that coaches could run on advertised time. The names of Macadam[4] and Telford[5] were once as highly honored as are now the names of Stephenson[6] and Fulton[7]. But horses are a poor substitute for the locomotive as may be learned from the following schedule of time for coaches in 1782 and for railways in 1882.

Routes.	*By Coaches, 1782.*	*By Railways, 1882.*
From Paris to Marseilles,	13 days.	27 hours.
" " " Bordeaux,	8 "	19 "
" " " Callais,	3 "	5½ "
" " " Strassbrug,	4½ "	11 "

Roughly speaking, we may say, that for passenger traffic as great a distance is now accomplished in an hour as formerly in a day, while for freight traffic the relative efficiency of modern methods is yet more marked.

Nor has this increased speed increased the dangers of travel. The greater safety of modern methods of travel is shown beyond a doubt by the following figures given upon the authority of M. de Foville. They display the average number of casualties for every one hundred million passengers carried by coaches and by railways.

Period.	Killed.	Wounded.
By Coach.		
1846–1855,	285	3,330
By Railways.		
1835–1855,	19	175
1859–1869,	7	148
1872–1877,	3	110

It has been estimated from returns furnished by the Massachusetts roads that, had a person a guarantee of life except by railway accident, and should he spend his entire time upon a fast passenger train, he could safely calculate upon attaining the age of Methuselah less two years. It would hardly be necessary for Madame de Sévigné now to seriously make her will, when starting upon a journey of one hundred miles to visit her daughter. To speed and safety we add comfort in travel. All these facts lend their influence in giving to society its peculiar characteristic of mobility.

POLITICAL EFFECTS OF RAILWAYS.

It is sometimes said that the development of railways has a tendency to intensify the spirit of democracy, and, although much nonsense has been written upon this theme, there is a sense in which the claim is true. It is true that the commerce of the nineteenth century touches as never before the lives of ordinary people. Consider by way of contrast the old caravan trade of the East. The goods in which traffic was had, were silks, jewels, teas, spices, and the like. An aristocratic republic might, perhaps, have been built upon the basis of such a trade, but never a democracy which would at the same time be a nation of dignity and strength. But the trade of to-day is wholly different. Meats, wheat, clothing, machinery, and raw material; articles heavy and light, for the poor and for the rich; all are carried with equal swiftness and safety. The intelligence necessary to profit by such commerce, the sense of mutual dependence which it engenders, and the feeling of personal importance as part of a great living body, produce that spirit in men which is the natural soil for democratic states. It is no accident that popular government and railways have spread simultaneously.

At the same time, railways, assisted by telegraphs, lend their influence to what is commonly called concentration of political power. Without their help it would be impossible to hold widely extended territories under the jurisdiction of a single government. Thus what Cæsar, and Charles V., and Napoleon endeavored in vain to accomplish, is coming about through the instrumentality of steam. Washington early recognized the importance of commerce as a bond of national union, and it was this thought which led him to recommend the construction of a canal from the Chesapeake to territory west of the Alleghanies. It was the same consideration that induced Congress to grant assistance in building the Union Pacific Railroad. Distance and time are no longer barriers to the government of extended territories. The perpetuation of the American Union by which the people of the United States are exempt from the military burdens carried by the peoples of Europe, is in large measure due to the fact that this country was developed with the assistance of railways and telegraphs.

GROWTH OF THE RAILWAY INDUSTRY.

It is usual to say that the era of railways dates from 1830, although for many years they were regarded as mere helps to canals and river transportation. But since 1860 their construction has been very rapid; the total extent of the world's railways in 1884 amounting to 292,550 miles of road-bed. The rate of construction may be learned from the following table.

Table Showing Railways of the World.

	1840	1850	1860	1870	1880
Europe,	2,130	14,550	32,350	64,670	105,270
America,	2,860	9,660	33,550	58,850	106,470
Asia,	. . .	. . .	840	5,120	9,970
Australia,	. . .	. . .	350	1,040	4,880
Africa,	. . .	. . .	300	950	2,870
TOTAL,	4,990	24,210	67,390	130,630	229,460

Of the railways accredited by this table in 1880 to America, nearly ninety thousand miles were situated in the United States. In 1884 the road-bed of this country amounted to one hundred twenty-five thousand miles. This gives an average of one mile of road-bed for every 520 of the inhabitants and every seven and one-half square miles of territory. In Europe, on the other hand, there is but one mile of road-bed for every two thousand forty of the inhabitants and every ten and two-tenths square miles of territory. Belgium is more perfectly supplied with railways than any other country of Europe, having one mile of road-bed for every four and two-tenths square miles of territory; but in both Massachusetts and New Jersey we find every four square miles of territory supporting a mile of roadway. Such facts as these are frequently recited in a boastful spirit as showing the greater enterprise of the American people, but there is a reverse side to the picture. The business of constructing highways of commerce has been conducted with wasteful extravagance. Undertaken in many cases for purely speculative purposes, it has created commercial facilities in excess of the legitimate demands of trade. But here again we touch upon the railway problem.

Still it is true that Americans make greater use of railways than Europeans. The average amount of travel per inhabitant in this country amounts to one hundred ninety-eight passenger-miles, as against ninety-nine passenger-miles for Germany. The freight carried is also greater, the number of ton-miles per inhabitant being seven hundred seventy-two as against two hundred twelve. That is to say,—the American travels upon the average one and three-fifths times as much as the German ,and demands three and one-half times the amount of freight service. The amount of rolling stock which, in 1884 was demanded to carry on this traffic in the United States was as follows,—locomotives, 24,587; passenger cars, 17,993; baggage, mail, and express cars, 5,911; freight cars, 798,339. It would be useless to compare these figures with corresponding figures of European countries, since all their rolling stock is much lighter than what is used in this country. And after all, the true measure of the railway industry is not found in figures, but in those marvelous results which follow from its development which I have endeavored to suggest.

ORGANIZATION OF THE RAILWAY INDUSTRY.

When the policy of inland commerce was in its infancy in this country, it was quite common for the individual states to take full charge of the business. Thus the state of New York built the Erie canal, and later many states engaged in the business of constructing railways. It was owing to the failure of this policy that the present policy was adopted of granting charters to private companies to build and operate roads. But under this system many abuses sprang up, and it became necessary, in consequence, for the legislatures of the several states to pass laws regulating the administration of railways and to appoint special officers, called commissioners, to see that these laws were executed. This is the condition under which the internal commerce of the United States at present rests.

The evils of railway management under private control, spring from excessive and unguarded competition. To obviate these evils two forms of organization have been proposed: state ownership, and territorialization. Under state ownership the railways would be managed very much as the federal post-office is now managed. Being the property of the government and a strict monopoly, they might be run in the interest of the public. Belgium at the present time realizes this form of organization more nearly than any other country. Where the principle of territorialization is applied, the country is cut up into sections and the government grants to private companies the exclusive right to build and operate roads in these sections. Here too we find the establishment of a strict monopoly, and in order to guard the interests of the public, the government retains the right of final decision upon all questions of administration. This is the plan adopted by France in the organization of her railway system.

The question is frequently asked if railroading offers an opportunity for remunerative employment. The best answer to such a question is a statement of the magnitude of the business. The amount of capital invested in this form of property in this country is six billion dollars, being a sum twice as large as that invested in farming machinery and stock. It goes without saying that a business so extensive must employ large numbers of men. According to the census report of 1880, one-eighth of the total number in the United States engaged in trade and transportation, and fifteen out of every thousand of the laboring population, are in the employ of the railway corporations. The classification of these men is as follows:

Officials in railway corporations, - - -	2,069
Clerks and Book-keepers, - - - -	12,331
Other persons employed, - - - -	236,058
	250,458

There is not included in this classification, civil and mechanical engineers, and many employed in car shops. An industry of such magnitude has come to stay and will always furnish work for willing and efficient men. But for the most part, the labor which it demands is skilled labor. Its civil and mechanical engineers must be men of thorough education, and there is an observed tendency at the present time to favor such applicants as have received some technical training. Some of the larger corporations, as for example the Baltimore and Ohio Railroad, have established technological schools in connection with their shops, for the express purpose of furnishing themselves with trained men. If any young man aspires to rise in the railway business his first step should be to lay a solid foundation in a good technical education.

If I have succeeded in my purpose, the facts presented in this article have led to the impression that steam transportation is a most important factor in modern civilization. It is to society what the gift of a new sense would be to the individual. The benefits which it bestows are many. The opportunities which it offers to young men of ability and energy are numerous and various; for not only is administrative talent of a high order required for its successful management, but the social problems which it opens up, demand from the legislator, the publicist, and the economist most careful consideration.

THE GREAT STAR.

CHARLES BARNARD.

Procure a few yards of white cotton twine, a sheet of thick wrapping paper, a hand mirror, and a lamp. An old envelope box will also be useful. Tie one end of the string to the back of a chair, and a book or other heavy weight to the other end. Then pass the weighted end over the back of another chair so that the weight will be suspended, and the string drawn tight between the two chairs. The distance between the chairs should be as great as convenient in any room of ordinary size. We have now a line stretched between two points. We see that the twine takes the very shortest path between the two chair-backs. It is what is called a right line. If any thing were to move or travel along the string we should say that it moved in a right line. Carpenters, brick-layers, and masons recognized this fact thousands of years ago, for the monuments of Egypt plainly show a mason's plumb-line in the pictures representing the work of those old builders. To-day we see the carpenter's chalk line and the brick-layer's string used in precisely the same way to make their work straight, or on a right line.

It is best to try this experiment in the night, for we have still more to learn from this bit of stretched string. Light the lamp, and have all other lights put out, and exclude all light from the windows. If an envelope box can be procured, cut out each end, and fasten the cover on securely by pasting or tying it firmly. Then with a knife, cut a very small hole in the cover about one-third from the end. Next procure some books, lay them in one of the chairs, and put the lighted lamp on the books in such a position that the flame of the lamp will be just opposite the stretched twine. Then carefully slip the box, which is now a paste-board tube, over the lamp, and hold it in such a position that the light will shine out through the small hole directly on the string. While carefully held in this position by one person, let another sit on the other chair and look along the length of the string. If you observe that the little spot of bright light is not opposite, direct your assistant to raise or lower the box till it is just right. The instant the beam of light shining out of the hole is opposite the string, a most curious effect will be observed. The entire length of the twine will be illuminated, and every little fuzzy hair will seem to shine like silver. It is plain that the entire length of the twine is illuminated. The beam of light is very small, and it touches the entire cord, even if twenty feet long. What must we think from this? Plainly the beam of light is straight. If it were crooked or bent, only a portion of the line would be lighted.

This experiment is rather crude, and it can only be observed by one person at a time. A far better plan is to do it on a larger scale and in a more thorough manner so that many persons can see it at once. Use a small lamp, and in place of the paste-board box get a sheet of tin, and have it rolled or bent into a tube. Fit another tube over this to form a hood like the chimney of a magic lantern. With such an arrangement all the light from the lamp can be cut off and the room made quite dark. Then the tiny beam of

light that shines out through a small hole in the tube, can be made to light up the white string so that it can be seen by all in the room. If a magic lantern can be used and a flat piece of card board having a small hole placed directly over the lens, it will answer even better. It will cost a trifle more to procure the tin tube, but the effects will be far better, particularly when it is desirable to show the experiments before your local circle.

A still better way is to select a sunny room and, closing all the shutters, make the room quite dark. Have a part of one sunny window left uncovered, and over this fasten a thick piece of wrapping paper. Have a small hole made in this, and let one person stand outside the window and with a hand mirror reflect a beam of sunlight into this hole. He will have to watch carefully and keep the hole always lighted, but it will not be tiresome, for the experiments need not last more than a few minutes. In the darkened room the sunlight will appear as a level beam of light, which can be used to illustrate the experiment finely, making a beautiful effect with the illuminated string. In this case, of course, one end of the string must be close to the hole in the paper.

Light, we recognize as a motion. A piece of metal when cold is black in the dark. It may be even quite hot and yet be invisible. If made still hotter, it gives out a dull red glow in the dark. If very hot, it will glow brightly with a white light. The oil in our lamp is in a state of intensely rapid motion. It is undergoing a change we call combustion. We say it flames and gives light. We see also that the sun is a source of light. We might stop here for hours and perform many interesting experiments with this beam of light in a dark room. We have only time to consider one or two things that have a bearing on our C. L. S. C. readings in astronomy. These have to do with the laws of light, and one of these laws we have just demonstrated by our experiments. Light is a motion. It moves with almost inconceivable rapidity from any source of light, a lamp or a star, and always in a right line. The law may thus be stated: Light moves in a right line.

Our readings will show us that we live on a certain star called Earth. It is one of a small group which surrounds a luminous star called the Sun, and sometimes known as the Great Star, because it is apparently the largest star we see in the heavens. This star gives out light. There are also countless other suns, self-luminous stars, which send their light across spaces so vast that we have no figures to represent their distance. Whatever the distance their light travels to reach us, it obeys this great law and moves every where in a right line. The Creator has made this law, and in studying it we gain a wonderful idea of the universal extent of His thought, the enormous range of His kingdom. It gives a new conception of the Universal Mind that rules over spaces so vast we cannot comprehend them; and it also gives us the grand base line by which the astronomer measures the heavens as with a rod. He tells us of the distance of our neighbor, the Moon. He gives us the diameter of the great circle along which our star swims through space each year. He gives us the distance of each star in our little solar group in millions of miles, precisely as a surveyor may measure a field. There is no chain from star to star, but there is light, and it moves in a fixed straight line, and by a simple system of angles it becomes possible to use the light to calculate these gigantic distances across the universe. Did light follow an uncertain, winding path, all astronomical measurements would be impossible. Moreover, our light-houses on the land would be useless, and navigation would be impracticable. There would be no precision in any large measurements, no certainty an any astronomical calculations.

Make the best arrangements you can for securing a strong beam of lamp-light or sunlight in a dark room, and let us return to our experiments. Get a clear glass tumbler and fill it with water and then add enough milk to make the water milky white. One tablespoonful of milk will answer. Get also a mirror and a sheet of unglazed white paper. Arrange the beam of light to pass across the room where it can be plainly seen by all in the circle. Now hold the mirror in the beam of light. At once the light is bent and thrown upon the wall or ceiling. The light moves in a right line to the mirror and then rebounds in another direction. If the mirror is exactly square before the light, the light appears to be lost. It is returned straight to the lamp and is lost to sight. If it is at an angle, the light is turned aside at another angle. We might spend a whole day over this experiment and learn other laws of light. We have only time to observe one fact, and that is that certain things will throw back or reflect light. So we have a great fact in nature—light, like sound, can be reflected. Observe the mirror is very smooth, the beam of reflected light of the same size as the original beam from the lamp. Now try the sheet of paper. The paper shines brightly, and the hands of the person holding it are illuminated by the reflected light. Notice, however, the difference. The reflected light is now soft and diffused, and there is no bright spot on the wall, but only a little glow close to the paper. Compared with the glass the paper is rough. It has thousands of little surfaces, and each reflects the light in a different direction. The beam of light is divided into hundreds of smaller beams, each reflected from the irregular surface of the paper in a right line along its own path. Now take the glass of milky water and hold it in the beam of light close to the lamp. It shines with a soft, white radiance as if filled with light. There is reflection from every minute speck of milk suspended in the water. Our reflecting surfaces are increased a thousand-fold, and the light is scattered in every direction. The particles of milk are so small that they are invisible, yet each catches a ray of light and reflects it, and the thousands of rays crossing in every direction produce this soft, diffused light.

A small experiment may explain great facts, and our pretty glowing glass of milk will show us the reason of some of the most curious things connected with the Great Star, our earth, the moon, and the black vaults of the heavens, where shines the Milky Way of stars. Find a place where the sky can be seen and, choosing a perfectly clear evening, just at sunset, make a study of the sky. Be perfectly free from interruption for a whole hour or more, and give yourself up to careful study of what can be seen. It will pay to do, even if only for the peace and rest that always comes from the study of nature. The sun lights up the entire scene, and the sky is blue. The sun sinks slowly and disappears, and only a slight change is visible. There are no longer any sharp shadows. The light comes now from the whole sky which appears luminous. Pay no attention to the colors of the sunset. Study now only the light. Very slowly the amount of light diminishes. The eastern sky appears darker. Soft shadows appear under the trees. Notice that there is no sharpness in any of these shadows. The light is exceedingly diffuse or scattered. The volume of light decreases still more, and the sky turns gray and finally quite black. There is still light, but it is very soft, and all outlines of objects become vague and indistinct. Then stars appear, first the larger and brighter, and lastly the fainter stars. If the moon is visible, it changes from

pale silver color to whitish yellow. At last it is night, and every star is bright, and the sky is black or very deep dark blue or purple.

Make careful notes of all you saw and try to find some explanation from our experiments. Observe that after the sun disappeared, the failing of the light was very slow. Notice how soft and diffused the twilight. We live on the earth at the bottom of a sea of air. The atmosphere, that seems so clear and transparent, is really full of particles of dust, smoke, water, and every minute speck, even though invisible, reflects light. As there are millions of reflecting points the light is caught and reflected in every direction, and in our glass of milky water, the light is diffused and soft. As the spot on the surface of the earth on which we stand moves toward the east, we are carried away from the sun and less and less of the air is illuminated. When we have moved far enough to the east, more of these floating specks and drops of vapor are illuminated and the light is no longer visible. The sun is still shining past our globe through the vast spaces outside our atmosphere, but finding nothing on which it can fall it passes by unseen, and the vault of the sky appears black and dark. The light is still there, and it falls on the moon, and we see it reflected into our eyes through the dark air. The stars are now visible simply because our atmosphere is not lighted. We are standing in the shadow of earth. The stars shine on through day and night, but by day the light is so broken up and confused and split into so many cross lights that our eyes are blinded, and we cannot see the stars. May it not be much the same way when the cross lights of earth shut out the lights of the Heavenly City?

If there be men in the moon, they see no sunsets like this. The sun appears and disappears at the beginning and ending of the lunar day, all in a moment like the going out of an electric lamp. There is no soft, diffused light, because there is no atmosphere. There is no atmosphere in the vast spaces outside of earth. So, if we could be there to see, we should find no enormous space filled with light, but only awful blackness through which the sun shines forever as a ball of light, sharp and clear cut against a black sky.

If we could construct a dark chamber in which the air should be absolutely pure and free from dust, and could send a beam of vivid electric light through it without touching anything, the place would still be dark. Light is only visible when it directly strikes the eye or is reflected from some object and then reaches the eye. Put a lamp in a window at night and look out of the window, carefully shading the eye from the light. Unless the light falls on some object outside the window, the whole window appears black. So it is we see the planets at night. We sit in the earth's shadow and look through the transparent spaces of the universe and see the light of the Great Star reflected from Venus, and we wonder at her marvelous beauty. So, too, if there be men to see, our earth glows in some planet's sky as only one more star among the starry host that dots the black heavens. If one hour of patient watching of the sky has taught us no more, it has shown us that the most simple experiments may explain great laws and help to make clear the design of a universe.

End of Required Reading for November.

THE WASTED WEEK.

CHARLES G. BLANDEN.

For the needless loss of this golden sheaf,
With its broken band and its scattered grain,
The measures will lack, and the reckoning leaf
Show balance less great in the final gain.

THE ASSOCIATED PRESS.

S. N. CLARK.

To a vast majority of newspaper readers the words "Associated Press" convey no definite idea and the work of press organizations is a mystery. The press association of to-day is the result of a process of evolution. The "Associated Press," which is the leading and strongest organization, has no corporate existence, but is simply an association of newspapers for the purpose of collecting and distributing news. Its members bind themselves to place at the disposal of all the newspapers belonging to the association, all the domestic news obtained by them in their respective fields, and the expense of collection and distribution is shared equally. The association thus enjoys the benefits of local knowledge and the judgment and enterprise of newspaper managers in all parts of North America, in addition to the directing authority of its general manager and his large corps of experienced assistants who are stationed in many cities throughout the Union.

The general manager of the association is William Henry Smith who is stationed in New York. He is fifty-three years old and a native of Columbia County, New York. He has been engaged in journalism and literary pursuits for thirty-five years and has enjoyed the benefits of a varied newspaper experience. In 1869 he became general manager of the Western Associated Press at Chicago, and in 1883, when the Western and New York associations were united, he was placed at the head of the new organization. The executive committee consists of Whitelaw Ried, *New York Tribune;* Charles A. Dana, *New York Sun;* Richard Smith, *Cincinnati Commercial-Gazette;* W. N. Haldeman, *Louisville Courier-Journal;* and James Gordon Bennett, *New York Herald.*

In the United States, the first united and organized efforts by newspapers to obtain the latest intelligence were put forth in the city of New York and were confined to the collection of foreign news from incoming vessels. Later, like efforts were applied to the gathering and transmitting of important political intelligence from the National Capital.

The amount of news thus spread before the readers of the daily press was small and its details extremely meager for some years, even after the telegraph was in operation between Washington and the chief cities of the country. The expense of telegraphic transmission, and the limited resources of the newspapers, formed a strong barrier to associated effort, as well as to individual enterprise. In order to realize the vast change that has taken place in the transmission of intelligence, it must be remembered that the use of the telegraph for that purpose began only forty-three years ago. The credit for its first practical use is largely due to an individual, William M. Swain, of the *Public Ledger* of Philadelphia. When the country was deeply interested and excited over the progress of the war with Mexico, and news from "the front" was excessively meager and often contradictory and untrustworthy, Mr. Swain conceived the idea of using the telegraph as a means of obtaining the earliest information from the National Capital. This quickly superseded the "pony express" upon which the associated newspapers of New York, as well as individual journals, had hitherto depended. In December, 1845, the telegraph was in operation between Washington and Philadelphia, Pittsburgh, Louisville, Cincinnati, St. Louis, and Detroit; and it was made the medium for a great stroke of associated newspaper enterprise. The first message of President Polk was transmitted by wire and published simultaneously in the cities named and in Zanesville, Cleveland, and Buffalo. The transmission of the document occupied two days and nights, and its publication in a dozen newspapers forty-eight hours after its delivery to Congress was regarded as little short of a miracle.

Let us contrast it with some of the more recent exploits of the press associations of to-day, which supply news to more than twelve hundred newspapers in every part of the United States and Canada. A verbatim report of the Republican and Democratic national conventions of 1884 was furnished to all the leading newspapers of the United States each day. This daily report occupied about eight times as much space as President Polk's first message, and it was received by newspapers in all the principal cities of the United States from Portland, Maine, to Portland, Oregon, and from Savannah and Mobile, to New Orleans and Galveston, within two hours after the adjournment of each sitting of the convention. In 1885, within sixteen minutes after the execution of Riel, the half-breed "rebel," at Regina, in the remote Northwest, four hundred miles west of Winnipeg, news of the event reached every principal newspaper in the Union, and within two hours each of them had received a column of details describing the execution. Premier Gladstone began the delivery of his great speech on Home Rule, which contained more words than President Polk's first message, after four o'clock in the afternoon, London time, and at ten o'clock, New York time, the same night, through the medium of the Associated Press, it was in the office of every prominent American daily newspaper. On the morning of July 2, 1881, President Garfield was shot by the assassin, Guiteau. Within thirty minutes press bulletins of the event were displayed by newspapers in every city in the Union, and on the next morning they published from five to fifteen columns of Associated Press matter giving details and incidents relating to the tragedy. No event could have been more unexpected, and it occurred at a time when Washington was profoundly quiet, clothed in the summer garb of vacation dullness; and yet, within twelve hours the agents of the press associations had transmitted complete accounts of it to the remotest cities in the Union and to every quarter of the civilized world. Under all the circumstances this, perhaps, was the severest test of the vigilance and thorough discipline of the Associated Press which ever has been applied, and it was completely successful.

Before the outbreak of the Rebellion, the associated press work in Washington was performed by "Father" Gobright and a single assistant. Two years later another assistant was employed. Mr. Gobright reported the routine proceedings of the House, one of his assistants performed like duty in the Senate, and the other gathered the news of the Executive Departments. It was not until after the close of the war that the Washington agency of what was then styled the "New York Associated Press" was thoroughly organized and placed on an efficient basis.

For some years there was constant strife and earnest competition for territory between the New York Association and the Western Associated Press and other rivals which entered the field. It was not until 1883, after the Western Associated Press had established a cable service and opened offices in New York and Washington, that a combination was formed between the New York Associated Press and its formidable western competitor, which under the name, the "Associated Press," now covers the entire country. Its only competitor is the "United Press," which preserves a separate organization with officers in all the principal cities of the Union, east of the Rocky Mountains, and which furnishes daily reports to some three hundred newspapers.

In order to present a clear idea of the workings of the press organizations it will be well to describe, briefly, the agencies and methods used by the Associated Press to distribute the information it collects. The principal offices of the association are in New York and Chicago, and it has agencies in every city and town of any consequence in the United States. As before stated, each newspaper which enjoys the benefits of the association is bound to contribute to the general stock of news such fresh intelligence as it may collect in its own field of enterprise. The news of a great fire in Portland, Maine, of an anti-Chinese riot in Portland, Oregon, of a "strike" in Cleveland or Pittsburgh, of a "lock-out" in Fall River or Philadelphia, is chronicled in the daily press of New Orleans, Winnipeg, Denver, or Chicago as promptly as is the news of a change of ministry in England, the result of an international yacht race in New York, an outbreak of yellow fever in Galveston, or a "mine horror" in the most thickly populated coal region of Pennsylvania.

In Charleston, South Carolina, *The News and Courier* is a member of the Associated Press, and upon that paper devolved the duty of furnishing to nine hundred other newspapers belonging to the Associated Press, detailed information of the earthquake shocks which recently caused such destruction of life and property in that unfortunate city. How promptly and well that duty was performed by the staff of *The News and Courier* under most perilous and discouraging circumstances every newspaper reader must remember. The sum of five hundred dollars sent from the treasury of the Associated Press for distribution among the gallant men who so faithfully and accurately described the details of that terrible convulsion while surrounded by the ruins of their homes and appalled by the desolation and suffering on every hand, that incredulous men who went to criticise came away to praise, was a well-merited although inadequate recognition of their courage and devotion to their profession. Not only in news centers but wherever events of public interest are expected to occur, the reporter of the Associated Press is speedily on the ground prepared for his work, so that if emperors embrace each other at Gastein, or a president captures a trout or misses a deer in the heart of the Adirondack wil-

derness, or the last spike is driven in a trans-continental railway, the newspaper reader in any part of the country is promptly apprised of the fact.

The main distributing agencies of the Associated Press outside the cities of New York and Chicago, are in the cities of Washington, Philadelphia, Boston, Cincinnati, St. Louis, San Francisco, Galveston, Detroit, St. Paul, and Nashville. From Galveston daily reports are sent by cable to Vera Cruz and from there to newspapers in the City of Mexico.

These agencies are connected by a system of leased wires operated by men employed by the association. In the New York office about one hundred persons are steadily employed and about one hundred thousand words are daily received. This matter is edited, "boiled down" to an average of about thirty-three thousand words, and transmitted to all the distributing agencies and to leading newspapers. The Associated Press embraces a number of subsidiary or co-operative associations in different parts of the country. For example the Northwestern Associated Press furnishes reports from the Chicago office of the Associated Press to a large number of cities in Illinois, Nebraska, Iowa, and Wisconsin; at St. Paul a "pony" report is made up for the Northern Minnesota, Dakota, and Montana papers; from San Francisco a report is supplied to all the Pacific Coast papers, except Portland, Oregon, which, like San Francisco, receives a report direct from Chicago and distributes it to Washington Territory and British Columbia. A condensed report from Chicago is received at Denver and Salt Lake City, from which places it is supplied to papers in Colorado, Utah, and adjacent Territories. Condensed reports are sent from Philadelphia to the interior cities of Pennsylvania, while the New York State Associated Press and the New England Associated Press supply reports to the interior cities of New York and New England, respectively.

Associated press news reaches the Southern States through the Southern Associated Press, supplied direct from Washington for all cities east of Nashville and New Orleans, and through the Western Associated Press from Cincinnati for all other southern cities. Washington is the distributing point for all southern news received from cities east of Nashville and New Orleans. It should be noted also that the leading newspapers in the Dominion of Canada, from Halifax, Nova Scotia, to Victoria, British Columbia, are supplied with regular reports by the Associated Press. Moreover, the Association has agents in Mexico, Central America, China, and Japan, who transmit regular reports of events in those countries by mail and telegraph. Its London agent receives all the information collected by the Central News Agency, which covers England, Scotland, Ireland, and Wales; by the Reuter Agency which covers a large part of Continental Europe and Asia; by the Havas Agency which collects the news of Belgium and France and her colonies, and by the Wolff Agency, which is subsidiary to the Reuter Agency and devotes itself to German intelligence. Thus it will be seen that by its own organization in North America and through its co-operation with agencies of a kindred nature in Europe the Associated Press daily spreads before its readers news of all important events throughout the civilized world.

Among the factors of this great news organization the Washington Bureau is one of the most important, and as now organized it is probably the best equipped news reporting agency in the United States, if not in the world. It has a strong corps of experienced reporters who have served a long apprenticeship in Washington news-gathering and who are, therefore, thoroughly familiar with the work to be done and with the facilities for doing it. The agency is in charge of David R. McKee, who has been engaged in newspaper work in Washington for nearly twenty years. He is a man of energy with a keen instinct for news and he enjoys a wide acquaintance with public men who respect and have great confidence in him. Associated with him is Charles A. Boynton, agent of the Western Associated Press, who compiles and edits the Washington news for the west and southwest. He was formerly the New York agent of the Western Associated Press, and has been for sixteen years engaged in associated press work. He is one of the most capable and efficient men in the service. The night manager of the agency is George Kennan, the well-known and enthusiastic Arctic traveler who is doing so much to enlighten his countrymen in regard to Siberian Russia. The southern reports from Washington are in charge of O. H. Hatton, another veteran in the Associated Press service. The corps of reporters, stenographers, copyists, telegraph operators, and messengers attached to the Washington Agency, numbers about twenty-six persons during the sittings of Congress, and some twenty persons when Congress is not in session. On extraordinary occasions, as for example the inauguration of a president, the force of reporters is increased as may be found necessary. The work of collecting news is thoroughly systematized so as to cover the entire field of governmental activity. A stenographic reporter occupies a seat near the official reporters in each branch of Congress and prepares a full synopsis of the debates and proceedings. Other reporters attend the public sittings of all committees of Congress, many of which are of great public interest and importance. It is a part of the duty of these reporters also to obtain abstracts of all bills, resolutions, and memorials of general interest as soon as they are offered, and to present the main features of such committee reports as will be likely to command public attention.

When the Supreme Court of the United States is sitting, the Associated Press furnishes synopses of its decisions, in the more important cases giving a succinct but clear and comprehensive statement of the questions passed upon, and the force and scope of each decision. The same course is pursued in regard to the proceedings of the Court of Claims and such judicial commissions and international tribunals as may be open. The details of all official doings of the president and the heads of executive departments, including all proclamations, decisions, orders, and appointments to and removals from office are fully and promptly spread before the people through the medium of the Associated Press, whose reporters are required daily to present also the results of official action in every bureau of the government. Small matters must not be neglected. The appointment of a fourth class postmaster at an office worth five hundred dollars a year may excite as much interest in a county as will be created by the appointment of a first class postmaster at three thousand a year in a city; and to the newspaper which circulates in the county the news of the smaller appointment is necessary and important. The Associated Press reporter, therefore, must compile a daily list of all official appointments for transmission to the several states and territories. In the western states and territories where so large a proportion of the people is interested in the administration of the public land service and the Indian service, early and accurate information of the actions and policy of the commissioner of Indian affairs and the commissioner of lands is essential, and the press associations must supply it.

When Prof. Baird, or one of his subordinates, discovers a new fact of importance to the fishermen or the fish consumers,

it must be spread before the readers of the newspapers. The state of the weather and the condition of the crops as reported by the government interest millions of people, and this information must be spread promptly before them. These facts and illustrations will serve fairly to indicate the nature and scope of the daily work of the Associated Press reporters in Washington. After the reports are written out they are carefully edited and collated. Matters of national or general interest are transmitted to all the papers in the association, while those of local or minor interest are sent to newspapers in the localities or regions directly interested or affected. The transmission of the regular daily report for the first edition of the evening newspapers begins at 9 o'clock a. m., and from that hour until two or three o'clock the next morning the telegraphic wires of the Washington Bureau are in constant use. Sometimes for weeks together reporters and operators are on duty constantly. During the eighty days which elapsed between the wounding and death of President Garfield, the office of the Associated Press was never closed, and when death at last came, suddenly and unexpectedly, the intelligence was promptly flashed over the wires throughout the land by alert and vigilant press reporters. Again, when General Grant in his airy cottage on Mt. McGregor fought his last earthly conflict, the news facilities of the Associated Press were held in constant readiness and almost in the moment when the Great Soldier rested from the struggle a hundred telegraphic wires throbbed with the mournful news which reached the remotest parts of the Union in a space of time to be measured almost by seconds.

In addition to the regular daily reports, bulletins and special reports of all events of extraordinary interest or importance are transmitted as soon as they occur.

As the patrons of the Associated Press comprise newspapers of all shades of political opinion, as well as journals published in different languages, the reports necessarily must be devoid of bias and free from partisan comment or other coloring than accurate description may impart; in short, they must be plain statements of facts and events. In the Washington Bureau the utmost pains are taken to insure thorough accuracy and fairness in the reports of official occurrences, and whenever either is wanting, the lack is due not to the carelessness or bias of the reporter, but to perversity or misrepresentation on the part of the official whose representations the reporter is bound to accept. Recent tendencies of high officials to pervert and misrepresent facts have sometimes placed the Associated Press in a false and awkard position, and have provoked severe but just criticism. Officers of the Government who forget that they are servants of the people and who seek to mislead or deceive them will realize sooner or later that attempts at deception invariably fail, and result in disagreeable and mortifying exposures; and the sooner officials abandon their futile attempts to suppress information in which the people have a legitimate interest, the better it will be for them. Respectable American newspapers have no desire to misrepresent facts or distort the truth, and the "mendacity" of which they are frequently accused can be traced almost invariably to some official who sets himself up to act as a news censor.

A GREAT GERMAN HISTORIAN.

M. G. VALBERT.

Translated for THE CHAUTAUQUAN from the *Revue des Deux Mondes*.

Germany lost, a few weeks ago, (May 23, 1886), her greatest historian; but it is not Berlin alone that this loss has deeply affected. In France, in England, in Italy, and in the United States, Leopold Ranke had warm admirers. All peoples whose history he has related, found in him a kind as well as a just judge. He neither flattered nor gave offense to any; he practiced all his life the difficult art of being sincere without ever ceasing to be amiable.

As strong a patriot as he was, this great German was a European, a man without prejudices and without boundaries. The story goes that a negro tribe, seeing for the first time some of the English race, decided unanimously that the white man was an old monkey, that he had the appearance of a man, but for all that he was not a man. Many a German historian, whom one could name, is disposed to think that all there is of good in the human race, comes to it through the German nation, and that the German alone is a true and complete man. Ranke judged otherwise. He considered Europe as a family of peoples, each one of which has its own aptitudes, talents, and virtues, and that all are called to labor together in the great work of civilization, supplementing one another in their failings, by exchanges and borrowings. He possessed, more than any other modern historian, the gift of universal sympathy, and like Herodotus of old, whose praises he loved to sing, he was impartial and tolerant less through virtue than through good taste.

On December 21 of last year the ninetieth anniversary of his birth was celebrated with great pomp. He received upon that day the congratulations and the good wishes of his king, of Queen Augusta, of the crown-prince, of the Prussian ministry, of the Berlin Academy of Sciences, and of several German universities. This nonagenarian had just finished the sixth volume of his "Universal History," and he flattered himself that he would live long enough to complete the work. This joy has been denied him, but his glory has lost nothing by it.—"Thou hast preserved in thy old age the flower of youth," wrote to him in Greek verse the rector of Schulpforte, "and thy lips distill the honey of Nestor."

He never had any other ambition than to excel in his art. The biographer can very briefly relate the story of his life, without events, wholly consecrated to study. He was born in Thuringia; he was of small stature and had black eyes, quick and piercing. He taught some years at Frankfort-on-Oder. His "History of the Roman and German People" won for him wide attention; he was called to Berlin in 1825; he remained there for more than sixty years, changing his lodgings but once in all that time, so much in love was he with his laborious repose, and so much did he dread for his papers, for his books, for himself the poignant emotions of a removal! He taught; he wrote;—and he never wished to do anything else. One will readily believe that he followed this course most rigorously; but those who never heard him lecture will with difficulty imagine the incredible tension of mind which his auditors were obliged to impose upon themselves in order to understand him. He had a hollow, shrill voice, which could not be heard at any distance away, and an indistinct, monotonous articulation; the perpetual

animation in his face, the fierceness of his gestures, the fire of his glance, testified clearly that he himself was deeply interested in all that he said. To speak truly, it was with his eyes that he related the triumphs and the deceptions of Charles V.; the league of Smalcald; the battle of Muhlberg; and the diet of Augsburg.

If Ranke did not form a school, he did make books, and his books suffice for his glory. In relating the political history of Europe during the sixteenth and seventeenth centuries, he studied above all to place in clear light the reciprocal relations of the German peoples and the Neo-Latin nations at the time of the *Renaissance* and the Reformation. He loved to discover the secret reason for events, the concealed motive of human actions; he employed his rare skill in solving the mystery of interests, of affairs, of passions. He was mistaken more than once,—everybody makes mistakes; but he did not mask things, and he never espoused them. His exceptional probity, prudence, and discretion served as a corrective to his shrewdness. He scorned paradoxes. He held it for a principle that a historian runs great risk of misapprehension and delusion when in his estimate of men and events, he turns aside too much from the general opinion of his contemporaries; he claimed that he ought to set for himself the task of saying to the best of his ability that which they have not been able, or did not wish, to say. Thus he had little taste for the writers of dogmas; for those who make it their glory to astonish their readers; for those who set forth some heresy, hard to believe, or some daring, exorbitant proposition, and compose five or six great volumes in order to demonstrate it.

Ranke excelled particularly in the art of delineating character. He has given a movement and life to his "Wallenstein," at once attractive and terrible. His "History of the Popes," which justly passes for his best work, is a gallery of figures, some sketched with free and heavy strokes, and others drawn with a marvelous delicacy of touch. He had a genius for mezzotinto, and knew how to distribute the lights and shadows in a picture. Possessing a mind highly cultivated, nourished upon that which the best literature of all nations has produced, he never allowed political matters to cause him to forget poetry and letters. His judgments of writers are as good as his judgments of sovereigns and statesmen. No one has ever so well appreciated Machiavelli; no one has better depicted Montaigne; no one has rendered better homage to the grotesquely sublime genius of Rabelais, nor better characterized his epic satire, a monument which has not its like in literary history.

Ranke was, in the matter of history, an incomparable casuist; he disentangled without effort the most complicated cases. Of what use, however, is casuistry if it does not render a man indulgent? He thought that in the thorny intercourse of affairs, in the conflict of interests, in the *mêlée* of sects and parties, it is very difficult to have fixed rules of conduct, and very easy to blend ambition with duty. He thought also that events and the vicissitudes of fortune in great measure formed and unformed character. "It is life which educates man," he said. "We are as trees which draw their strength less from the soil whence they sprung than from the air which envelops them, from the light and the wind, from the rains and the storms." Thus he readily accords to great transgressors the benefit of extenuating circumstances. He interrogated Cæsar Borgia; he listened to him with complaisant attention; and remitted to him at least one-half his crimes.

That day last year when they celebrated his entrance upon his ninetieth year, after having listened, standing, to the compliments and the felicitations which were bestowed upon him from all parts, the Nestor of the Berlin University seated himself in an easy chair and in his turn began to speak. He discoursed in a tone of patriarchal simplicity of his youth, his first studies, and how he came to be a historian. He spoke of the ardent admiration which the works of Augustin Thierry, and, later, the romances of Walter Scott, had inspired in him; but he asserted that having read the "Memoires" of Philippe de Comines, he had immediately disagreed with the Roman historian and with the author of "Quentin Durward," because they, more than once, lent to their heroes thoughts and sentiments which those heroes never could have had. He added, "It may be said in passing, the reading of Comines produced a great impression upon me." We can believe this of him without any difficulty. Comines possessed the qualities which Ranke prized above all others, penetration united to discretion, and the power of delineating character.

No historian was more a stranger to all kinds of fanaticism than Ranke. He had little liking for the Jesuits, and still less for the Jacobins; but he comprehended well how a thoroughly honest man could be a Jesuit or a Jacobin; and if he had written the history of Robespierre, he would have treated him with the same regard, as that which he gave to Ignatius Loyola.

As to the rest, there was in him as in all truly great men, a fund of secret irony; such men have their convictions, but they are not the prisoners of them. In the last lines of his "History of the Popes," Ranke gives occasional glimpses, under a discreet form, of a time coming in which all religious hatreds will be appeased under the empire of a religion without legends, without formulas and dogmas. In spite of the strong attachment he professed for King Frederick Wililam IV., he allowed himself to say in 1849 that his sovereign produced on him the effect of a student who had failed in his examinations; as high a respect as he showed for Luther, he did not hide his weaknesses; he had an admiration for great popes, and yet no one has shown better than he, all the good resulting from the success of the Reformation in Germany. One day a zealous Protestant, the author of a history of the Reformation, met Leopold Ranke in an assembly and said to him with a modest pride, "I am a mere nothing beside you; but we have this in common, you and I, we are both historians and both Christians." To which the little man with the black eyes replied quickly, "Ah! permit me, there is this great difference between us, you are more of a Christian than a historian, and I am more of a historian than a Christian."

This illustrious man flattered himself in the last months of his life that the course of things had changed; that revolution would never again rise from its defeats; that legitimate monarchies, the settled masters of the earth, would have nothing more to fear; and that there are sentences from which no one dare appeal. As vigorous as was his old age, a nonagenarian feels the need of repose, and he easily persuaded himself, that like himself, the world was weary, and asked only for rest. "The drama is played; the scene is ended," he would often say. But nothing is finished. Scarcely fallen, the curtain rises again, and whether the drama is good or bad the representation continues.

SANITARY NEEDS OF COUNTRY HOUSES.

CHARLES F. WINGATE.

To understand the common things of life is the prime wisdom.—*Milton.*

If one could follow THE CHAUTAUQUAN into the thousands of homes which it enters, and take a peep around, what would he see?

I speak as a sanitary engineer whose professional duties carry me through the millionaire's palace and the crowded tenements and into dwellings all over the country. I can, therefore, easily picture the interior of these homes, and would like to say a word to their inmates.

And first, I would remark that these dwellings are very comfortable. Their occupants know how to enjoy themselves. Even where their means are small there are signs of culture and refinement. Who ever saw an American home without a picture in it, or without flowers or birds or other pets. Even in the city tenements these tokens of taste abound. Then how cozy many of these homes are. The parlor lamp throws a cheerful light on the family circle as this paper is being scanned by some bright-faced youth or maiden. The open fire or base-burner stove casts a glow around the room. There are books and magazines on the center table, a photograph album, and a family Bible, an easy chair, a lounge, and probably a piano or parlor organ complete the domestic surroundings. There are no homes in the world which better deserve the name, or which exhibit greater refinement, neatness, comfort, and happiness.

But I notice many in these homes who seem in grief, many who wear the mourner's garb. There are gaps in the family circle and some sit sadly alone because a father or mother or some other dear one has been taken away. Upstairs is a vacant chamber where a brother or sister used to sleep. In the attic is a crib once occupied by a tender infant whose body now rests beneath the sod. Death has entered here and left his sad souvenirs,—"little mounds, but to our aching hearts wider than the star-sown vagues of space."

Open this closet and note the array of medicine bottles on the shelf. Ask how often the doctor calls. Observe the wan cheeks of some invalid member of the family and notice how much the conversation bears upon personal ailments. The first greeting, "How do you feel to-day?" implies that "feeling badly" is a common experience. We do not ask 'Is your house standing all right?" unless it is common for houses to fall down, and so such questions imply that a great many people "enjoy poor health."

Why are the newspapers on the sitting room table filled with advertisements of quack medicines, and the rocks and fences along the highways and by-ways disfigured with like announcements? These deformed stones preach a sermon to the sanitarist and refute the boasts of the real estate agent and the "oldest inhabitant" regarding the healthfulness of the locality.

Is all of this sickness and death Providential? Do not the inmates of these homes care about their health, or are they ignorant how to preserve it? Could not a great deal of this suffering be prevented?

I answer most emphatically that much, if not most ordinary forms of sickness are preventable, and it is blasphemy to lay it to Providence. People do care about their health, but they do not know how to preserve it. They leave these matters to the doctor, and his business is to cure, not to prevent disease. Hence has arisen the need of a new profession aptly called "the house physician." His province is to ward off sickness and to keep people well; to provide "the ounce of prevention" and to avoid spending money for drugs and doctors' bills.

In houses where sickness constantly prevails, one usually finds something wrong with the sanitary arrangements. Of course people will get sick, and all must die in time, but a vast number of maladies are preventable. There is no need of so many persons dying of consumption or typhoid or typhus fever, diphtheria or scarlet fever, if reasonable precautions are taken. Neither is there any necessity for so much rheumatism or malaria or many other diseases which abound everywhere.

Three things are essential to health: Pure air; a dry soil; and pure water. Provide these, and half the ordinary maladies will disappear. Let me venture to offer some practical hints upon the sanitary needs of country houses to this end and to assist in controlling disease.

WHAT TO DO WITH THE HOUSE SLOPS.

In every household the kitchen and laundry slops are the chief source of trouble. They are of varying volume according to the size of the family, and they cannot always be easily got rid of, yet this must be done and quickly or they will cause trouble. The soapy water from the wash-tubs, often amounting to barrelfuls, contains much dirt and animal matter thrown off from the skin, and when exposed to heat and allowed to decompose, it will create very offensive and noxious gasses. Then there are the waste products of cooking, scraps of fat, meat, vegetables, and greasy water, all equally capable of fermentation, and amounting to many gallons in the course of time. The latter may be fed to pigs, but it must be got rid of promptly and at a safe distance. Under no circumstances should it be thrown out upon the ground near the back door as heedless householders and domestics so often do. It will surely create a wet, mucky spot, and under the sun's rays will bread miasma, while if the soakage gets into the well or cellar, no little harm may follow. If nothing else will serve, keep a tight covered barrel on wheels close at hand to receive such slops, and convey it away to a safe distance. It may be buried at a distant point, but not too much in one spot, and the earth should be carefully covered over afterward. If a drain is provided to receive such slops it should be tight and made of tile pipe with a good fall, and allowed to discharge at some place where the material will not putrefy and create a stench. Do not let it empty into a stagnant ditch or shallow pond, or along a road gutter where it will be exposed to the hot sun to decompose and create malaria. If the ground is sloping, a safe outfall can easily be obtained, but the chief difficulty is where the ground is flat and of tough clay which holds water for a long time. In such cases I would advise to lay the drain close to the surface of the ground with open joints so that the liquid contents can soak away through the joints into the soil and also be absorbed by the roots of the grass, and furthermore be oxidized or burned up by the action of the air getting down through the interstices of the ground.

The whole theory of drainage, it may be here stated, is to diffuse the material over as large a space as possible, so as

to promote its rapid soakage, and to prevent its saturating the soil in excess, or backing up and causing an overflow at any point. Ordinary soil is capable of absorbing an immense amount of fluid if it is supplied gradually and spread over a wide area, and the drainage of an ordinary household can be readily got rid of in a small space,—even a single house lot. If the ground is very tough it may be necessary to under-drain it. Even in sandy soil there may be strata of hard-pan just below the surface which will hold water, but if this is broken through, the sewage can penetrate below and find free escape. The possibilities of drainage in ordinary soil are shown by the rapidity with which the rain-fall is absorbed. In order to assist soakage, however, there must not be too much grease or other solids. The former chills and chokes up the drain pipes in a solid mass, especially if they are laid without enough fall, and therefore it is necessary to dig them up and clean them out every year or oftener. This necessity may be avoided by providing a grease trap, this will catch the grease and keep it out of the pipes. It will be found a valuable adjunct to every house.

If a cess-pool is dug to receive the kitchen slops alone, it should be as carefully planned as any other cess-pool. Where the soil is very porous and there is no well within two hundred feet, and if the cess-pool is one hundred feet distant from the house, then the bottom may be left open, but the top should always be open for ventilation. The drain from the house should be carefully laid and be tight especially where it passes by the cistern, and it should be properly trapped at the house. The most common defect in kitchen drains is that they are carried close around the house foundations and so near to the ground that they get cracked or crushed by loaded wagons crossing them. Then their contents soak into the cellar and an outbreak of typhoid fever or diphtheria may follow.

A properly planned cess-pool should be cemented tight, so as not to contaminate the soil in the vicinity; it should be well ventilated and disconnected from the dwelling by a suitable trap; it should be regularly cleaned out and disinfected and not allowed to overflow into streams where its contents may cause a nuisance; it should not be within a hundred feet of any well, unless absolutely water-tight, nor near a house. But how many cess-pools fulfil these conditions? They are constantly found under houses and close to windows. They are built of brick or stone with loose joints so that their fluid contents leach into the ground about foundations, poison the air, penetrate through the soil to distant wells or water-courses, and breed infection on all sides. They are not ventilated, except by the waste-pipes, which carry the gases of decomposition directly into the living rooms; they are rarely large enough to retain any amount of material and hence must of necessity overflow somewhere, while they are seldom cleaned. At Princeton College three years elapsed without a cleaning, and they are usually forgotten until they force themselves on the attention.

A private vault is always a nuisance and a source of possible danger. It is an eye-sore at all times and positively harmful in cold or wet weather from the exposure it necessitates. It attracts flies and mosquitoes, pollutes the soil, and is troublesome and expensive to clean out. Every householder can and should provide earth closets instead of this relic of barbarism. The private vault itself can be converted into an earth closet by constructing a strong wooden box, tarred inside and out if possible, and arranged to slide under the rear of the outhouse for convenience of removal. Then provide a supply of sifted ashes or friable earth, and the appliance is complete. It will insure security against well contamination, destroy odors, eradicate insects, and secure some valuable fertilizers for the garden. But no house slops or waste water should be thrown into this receptacle, nor any garbage or other refuse.

For indoor use such a device can be made at small cost, and will be found most useful for invalids or delicate persons, or women and children in inclement weather. I have known one made at a cost of two dollars fifty cents which served a family quite as well as some of the costly and so-called "automatic" appliances.

Having settled the matter of drainage, the question of water supply is less difficult. A well is unobjectionable if there is no risk of cess-pool contamination, but it should also be protected from surface drainage and guarded from all impurities. If rain-water is stored in a cistern, a filtering wall should be built of brick to filter the supply through it. An under-ground cistern keeps the water cooler than one indoors, but it must be watched and kept clean and secure. A house tank should never overflow into a drain, but on the roof.

The third essential for a safe habitation is to have a dry cellar. This is a rarity in many sections, and few householders realize how harmful are damp foundations and overflowing cellars. I firmly believe they produce half the crop of sickness, particularly consumption, and I should urge every one to insure that their homes are dry and their cellars well ventilated.

The first essential of a healthy house is that it should be dry. The presence of damp, leads to decaying of the timbers, and to a disintegration of the masonry and brick work, saltpetering of the walls, growth of fungus, and other vegetation; and serious injury to the health of the inmates. The prime causes of damp buildings are:—

(1.) An access of moisture in the soil or atmosphere, (2.) Porosity of the material of which it is constructed, (3.) Lack of ventilation and sunlight. Among the means to cure damp are, first, proper construction of cellars and foundations, damp course to check the rise of moisture through walls, coating the outer surface of walls with some substance that will exclude moisture; interior lining of tarred paper or Lincrusta Walton, and thorough ventilation by windows and other means.

Some two years since, I addressed the following letter of inquiry to several physicians of eminence both as medical men and sanitarists, as to the ill effects of damp cellars upon health, and the replies which I received from two of them are so emphatic and conclusive that I present them herewith:—

Dear Sir:—In my professional experience I constantly find it difficult to convince householders that there is any special risk from the presence of moisture in their cellars. At the present moment I am overhauling four houses in which there are from two to fifteen inches of water underneath the cellar floor, with no protection but ordinary concrete. I should like to fortify my own judgment by the opinion of so eminent a specialist as yourself, as to whether I am right in insisting that there are serious risks to health from occupying a house in which any moisture pervades the subsoil. Three of the dwellings mentioned have been noted for healthfulness; in the fourth, one adult has been suffering from chronic catarrh, and his wife died recently from dropsy complicated with rheumatism.

The first response is from Dr. C. R. Agnew, of New York City.

My dear Sir:—I am sure that there are few conditions more unfavorable to health than those which you describe in your note. Cellar atmosphere or "ground air" even un-

der the most favorable circumstances of natural drainage is unfavorable to health, and when the ground water is seen in a cellar beneath its floor or percolating through its walls, such a house should be condemned as unfit for the purpose of even a temporary domicile.

Yours very truly,

C. R. AGNEW.

The second reply was from Dr. Henry I. Bowditch of Boston, one of the most eminent living authorities on consumption.

BOSTON, June 29, 1884.

Dear Sir:—In reply to yours, if there be no "serious risk to health from occupying a house, in which any moisture pervades the subsoil," I would say that investigations, made in this country, primarily, and subsequently in England, without any knowledge of what had been done in Massachusetts, *prove conclusively* that a house so situated is more liable to consumption than another on dry soil. So important do I deem this fact, that I frequently say to patients, "If you will not move from your wet-cellared home, I think it foolish for me to prescribe or for you to take medicine. Respectfully yours,

HENRY I. BOWDITCH.

P. S.—In spite of this "law of soil-moisture"—thousands of houses are being built near Boston or in it for the poor, upon soil totally unfit for human habitation. I am glad to learn that one sanitary engineer stands *rectus in curia* upon the point. H. I. B.

To cure a damp cellar, first find out the source of the evil. It may be due simply to lack of ventilation or to moisture condensing on the cellar floor, or rain may enter through windows during heavy storms. All these defects can easily be removed. In detached suburban houses, additional openings may be made in foundation walls to admit air, with the ends protected by wire netting so as to exclude cats, rats, and other stray animals, and with some means to keep out rain and snow. A piece of curved earthenware pipe, technically called a bend, will serve very well for the purpose. Such inlets for air should be placed nearly opposite to each other to secure a current. It is so common to find windows placed only on one side of a cellar, that neither light nor air can gain an entrance. Such gloomy underground caverns are not desirable under any circumstances, and a light, cheerful, airy cellar is both a comfort and a safe-guard to the householder. The addition of a few inches in the height of the foundation walls, will make a vast difference in the cellar arrangement, giving more head room, better light, and making the cellar better fitted for storage purposes.

NORWAY.

BISHOP CYRUS D. FOSS, LL. D.

Norway has a population less than that of the state of Indiana, and covers an area more than three times as large, or twice as large as England. According to its last census in 1882, it had one million, nine hundred thirteen thousand inhabitants sparsely scattered over one hundred twenty-two thousand, seven hundred eighty square miles of territory. It is a peninsula shaped somewhat like a gourd, one thousand thirty miles long and from seventy miles to two hundred eighty miles broad. It has a less percentage of arable land than any other country in Europe, being made up almost entirely of mountains interlaced by valleys, the most of which are little more than mere chasms in the rocks. Into these valleys the sea penetrates everywhere, and the coast is lined by numerous high and rocky islands.

The natural scenery of Norway is unique and exceedingly varied. Perhaps no other country in Europe can vie with it in awakening admiration through all the octaves of beauty and grandeur. The wide-ranging tourist who has trodden all the great highways of the world can find "fresh fields and pastures new" in "the Land of the Midnight Sun." The skies above and the earth and the waters below will conspire to open in his soul fountains of novel and exquisite delight. Delicious bits of landscape, emerald valleys, water-falls of every size from trickling rills where a panting deer could scarcely slake his thirst, to roaring rivers leaping sheer down a thousand feet, limpid lakes with all conceivable shapes and settings from mountain mirrors to inland seas; lofty peaks; bald, solemn headlands; island-studded bays winding in and out with all conceivable and inconceivable lines of beauty; placid fiords (or inlets) cut by the keels of many nations and skirted by jagged cliffs and somber pines and fishermen's villages and peasants' huts,—and all these to be seen in the changing and multitudinous lights of a far northern summer, which range from the severe splendor of high noon to the weird loveliness of a day-light midnight—but words fail me and I pause.

The most renowned of all the sights in Norway, the North Cape under the midnight sun, is thus described by Bayard Taylor:

"Far to the north the sun lay in a bed of saffron light, over the clear horizon of the Arctic Ocean. A few bars of dazzling orange cloud floated about him; and, still higher in the sky, where the saffron melted through delicate rose-color into blue, hung like wreaths of vapor, touched with pearly, opaline flushes of pink and golden gray. The sea was a web of pale slate color shot through with threads of orange and saffron, from the dance of a myriad shifting and twinkling ripples. The air was filled with the soft, mysterious glow, and even the very azure of the southern sky seemed to shine through a net of golden gauze. Between the headlands of this deeply indented coast stood the midnight sun, shining on us with subdued fires, and with the gorgeous coloring of an hour for which we have no name, since it is neither sunrise nor sunset, but the blended loveliness of both."

It is always an unwelcome task to disabuse the mind of vivid but fabulous impressions. Such, however, is the popular notion of the famous Mælstrom. That terrible whirlpool turns out to be only a narrow passage between two of the Loffoden Islands. Bishop Pontoppidan in his "Natural History of Norway" alludes to the error common even "among the learned," of a "bottomless sea-abyss, penetrating quite through the globe." Jonas Ramus identified it with Scylla and Charybdis, believing that Ulysses sailed to the coast of Norway. He refers to Pliny and Plutarch, who speak of Greeks living in the north, where the sun was visible for thirty days together; and infers that these Greeks were descendants of Ulysses and his sailors. Going farther still, and with less warrant, he proceeds to identify Ulysses with Odin, the founder of all the Scandinavian dynasties. The real perils of the Mælstrom are produced by the tremendous current that rushes in and out of the great western

fiord which lies between the Loffodens and the western coast of Norway. When the wind blows from the north, the sea is thrown into such agitation that no boat could live in it for a moment; and in calm weather it is only for three-quarters of an hour before the flood-tide that the boatmen venture to cross, because the current flows twenty-six miles an hour. The stories of whales and even ships being swallowed up in the vortex are simply fables.

The mythology and earliest literature of Norway are exceedingly curious and interesting, the more so to the Anglo-Saxon race, because so much Norse blood flows in English veins. They show us a people with rough humor, shrewd wit, and love of home, fond of the sea, and savage in war. "In the earliest Norse poem known, entitled, 'The Guests' Wisdom,' a heathen production, wholly uninfluenced, as so much of the later literature is, by Christianity, such words as these are found:—'No one can carry better baggage on his way than wisdom; no worse wallet can he carry on his way than ale-bibbing.' 'No man is so good but there is a flaw in him; nor so bad as to be good for nothing.' 'One's own home is the best, though it be but a cottage.'"

The region about the Christiania fiord was formerly known as the "Vik," and the inhabitants were called vikings. They were the piratical sea-rovers who, in the eighth and ninth centuries, scourged the coasts of Britain and Gaul. One of the most interesting antiquities I have ever seen is the Viking's Ship, which is carefully preserved in an annex of the great museum in Christiania. In just such vessels the bold vikings crossed the North Sea for the bloody conflicts which at last placed the crown of England on the head of Canute. "When a viking died, his body was sometimes placed on his vessel, the sail was spread, the ship was set on fire, and the old sea-rover ended his career on the element he loved so well. But at other times the body was laid in a sepulchral chamber built upon the deck to receive it, and then the whole buried beneath a mound of earth. It was thus that this vessel closed her career, and the blue clay of the district has preserved it through all the centuries." It was discovered by accident in 1880. "The first impression made upon the visitor by this marvelously interesting relic is a conviction that the men who built it had little to learn from modern ship-wrights."

The first king of Norway was Harold Fairhair. It is told of him in later Sagas that "he fell in love with a beautiful girl named Gyda, who sent his messengers back with this lofty reply: 'Tell to King Harold these my words:—I will only agree to be his lawful wife on the condition that he shall first, for my sake, subjugate to himself the whole of Norway.' This message enraged the royal messenger, but chimed in well with Harold's ambition. He at once vowed never to comb or clip his hair until he had subdued the kingdom. This great achievement occupied ten busy years; and at the end of that time he cut his locks and married Gyda."

A century later arose Olaf Tryggveson, the greatest of all the northern kings. His life is an epic of exceeding interest. Coming out of the darkness he reigned for five short years, during which he accomplished his great design, the Christianization of Norway and all her colonies; and then in the height of all his glory, with the halo of holiness and heroism undimmed on his head, he vanishes again. Other centuries of struggle and of blood were required to toughen the fiber of the infant nation and to cement its union with the adjacent countries of Scandinavia. We must pass them by, and glance at the Norway of to-day.

The government of Norway is a limited monarchy; but its constitution and the prevalent opinion of its people are decidedly democratic. It has two houses of parliament, which generally sit and debate together, being known as the Storthing, and consisting of one hundred fourteen members, of whom a majority must be farmers; hence Norway has been nicknamed "the Farmer State." The Storthing elects one-fourth of its members a Lagthing, or Upper House. The rest are the Odelsthing, or Lower House, in which all important measures must originate; but the Lagthing may pass, amend, or reject them.

Within a few years there has been a most momentous liberal revolution peacefully achieved in Norway. The kings had formerly exercised the power of an absolute veto on laws enacted by the Storthing, and of retaining in office ministers of state however objectionable to the Storthing and to the people. The free men of the north could not endure forever such absolutistic assumptions. Gradually there grew up a liberal party with Sverdrup, the most popular political orator in Norway, at its head. At length, in 1883, the eleven ministers of the king were brought to trial before the Rigsrett, the High Court of Impeachment. They were not accused of peculation nor of any other immorality, but simply of having advised the king in a manner injurious to the people. The members of the Rigsrett voted by ballot and were sworn to secrecy. They adjudged the ministers guilty as charged, fined them eight thousand crowns each and disqualified them from holding office. The king determined to retain them, and issued a proclamation showing that the uniform practice of his predecessors justified him in such a course; but there quickly broke upon his ears so violent a storm of popular indignation that he hastened to retract his most ill-advised manifesto, appointed a liberal ministry with Sverdrup at its head, and consented to a change in the constitution which provided that three successive parliaments, elected for three years each, may pass a bill over the royal veto. When the long-sought revolution had at last been absolutely achieved, and sealed by the most reluctant but complete and irrevocable consent of the king, the people to the number of tens of thousands thronged the spacious park about the palace and thanked the king for the beneficent change *he* had wrought.

While I was in Christiania I visited the Storthing and had the good fortune to hear Sverdrup, the liberal Prime Minister, speak on a bill presented by the minister of war proposing the removal of the military magazines further inland for the sake of more complete protection in case of war. I also learned that his political liberalism goes to the extent of favoring female suffrage. The Storthing is a body of very intelligent-looking men, and its fine and commodious hall is at least twice as large as that of the British House of Commons.

National pride is so closely akin to love of country that one can hardly reckon any degree of it among the grosser faults of human nature,—but this feeling is certainly very strong in Norway and is intensified by jealousy of Sweden. The coins of each country bear the image of the king and pass freely in both; but those of Sweden are stamped 'Oscar II., King of Sweden and Norway," while those of Norway reverse the order of the last three words of the device. It is said that at a dinner in Paris, where a number of Swedes were present, the health of "the King of Sweden and Norway" was drunk with great enthusiasm. One glass however was left untouched. It was found to be that of a Norwegian, who explained by saying, "I cannot drink such a toast; but I will drink to the health of the King of Norway, who is also King of Sweden."

The observations on education in my article on Sweden (published in THE CHAUTAUQUAN for October) apply with

but little change to Norway. Suffice it now to say, that the system of public education in Norway is one of the most thorough and practically efficient possessed by any country. It is so satisfactory that there is not a private boarding-school in the entire country. Education is compulsory between the ages of seven and fourteen. The percentage of children who for any reason are not regular attendants of the schools is exceedingly small, and there are very few adults who cannot read and write. The University of Christiania is ably manned by a staff of fifty-two professors whose lectures are attended gratuitously by more than a thousand students. Its museum of natural history is very rich and admirably arranged.

The proportion of arable land is variously stated; sometimes as low as two per cent. The soil is thin, and the crops are often insufficient to supply the needs of the people. In plentiful years grain is stored away in national granaries against times of scarcity. In the north cattle-raising is an important branch of industry. The cattle are kept during the summer out at pasture, in high mountain-valleys, far from the cities. They are tended by dairy-maids, who live in "soeters," as their squalid huts are called, and who make large quantities of butter and cheese.

The fisheries of Norway are of great importance; particularly those of salmon, herring, cod, oysters, and lobsters. Seal hunting also yields a large revenue. In the famous Loffoden Fishery, on the east coast of the islands, twenty or twenty-five thousand fishermen and fifty-five hundred boats are employed; and twenty millions of cod are taken annually. They are dried or salted, and are exported principally to Italy and Spain.

The valuable resources of the coast districts, compared with which the inland districts offer small attraction to settlers, have also given rise to the important maritime trade of Norway, the foundation of which was laid by the piratical vikings, whose expeditions extended to Constantinople, and who discovered Iceland, Greenland, and North America five hundred years earlier than Columbus. The commercial fleet of Norway now ranks next to those of Great Britain and the United States.

The climate of Norway is the mildest and most equable, enjoyed in any country so far north, the average temperature being thirty-six degrees higher than in some other countries in the same latitude. On the west coast especially it is greatly modified by the Gulf Stream, so that in the same latitude in which Franklin perished in the Arctic regions of America, and in which lies the almost uninhabitable region of East Siberia, the water of these western fiords of Norway never freezes except in their upper extremities.

A great part of the country is covered with forests, chiefly pines; but the oak, the birch, elm, and beech also flourish. The apple tree grows in Scandinavia as far north as sixty-five degrees, while berries can be raised as far north as the North Cape. The great length of the Arctic days compensates for the lack of warmth. Barley ripens in exactly the same time at seventy degrees north as in the south of France.

The "Fest" is a unique institution of Scandinavian Methodism. In Norway it is carried on after some such fashion as this. A small admission fee is charged, some six or seven cents; at five o'clock a prayer-meeting for one hour; then coffee, sandwiches, plain cake, and enormous pitchers of skim milk; then a rousing love-feast lasting sometimes far beyond the disciplinary "one hour and a half;" then another prayer-meeting; closing with an altar-service; the entire meeting filling up from four to seven hours, and often being the harbinger of an extensive revival of religion.

America is the Utopia of Scandinavian thought and hope. At this I could not wonder when I looked at the sterile soil of Sweden and Norway and thought of the long dark winter, and the general poverty of the people. In Minnesota a house-maid gets as much wages in a month as she would get in half a year in Norway. In the lovely vale of Drammen a farm-laborer gets but fifty cents a day in the harvest-field; and, when the short summer is over, he is exceedingly fortunate if he can get work enough to earn the coarsest food. No wonder that such toilers have heard the strains of millenial music in our well-worn ditty:—

"Uncle Sam is rich enough
To give us all a farm,"—

and no wonder that the United States has received in some years a larger immigration from Scandinavia than from any other country, aggregating sometimes seventy thousand in six months. "The Golden Northwest" is the Swede's and Norwegian's special paradise, and to it the living tide ceaselessly flows. In self-protection, if there were no higher motive, America must strain every nerve to evangelize the Old World.

THE STORY OF THE PAST.

VIRNA WOODS.

A strain of music from Apollo's lyre;
A Phidias statue crumbling into dust;
Ashes remaining from a long spent fire;
Upon the gilded crown of glory, rust.

The echo of victorious battle-cry;
Silence upon the rostra; empty hands,
That held the haughty spoils of conquest high;
And ruined hills on devastated lands.

The snows have fallen and the wintry rain;
Before the wind the nymphs and gods have fled;
A few wild torches in the gloom remain,
Whose light reveals the story of the dead.

HOW FIVE NOTABLE WOMEN WERE EDUCATED.

KATE SANBORN.

Which five shall be honored? Men and women are such curious and often such pathetic combinations of the traits of their ancestors, that if we look back far enough, we can always find the different elements that produce a notable character. Some are born educated ; some come with an intense longing for knowledge ; others, with every advantage, refuse to be educated.

Women have not often had a fair chance, but now our colleges for women offer such opportunities for mental discipline, and steady drill in any desired direction, that all will be altered.

Thus far, women who have distinguished themselves have achieved their success by their own genius and persistence, aided by a father's guidance and a good library, or obliged to almost fight for what they were determined to obtain.

Fanny Burney had less education than any of her sisters, but she had an impulse for writing and produced a novel which Burke sat up all night to read. "Evelina" created a tremendous sensation, and by it she will always be remembered Walpole said, "She knew the world and penetrated character before she had stepped over the threshold." Surly Johnson said he was too proud to eat as he sat by Fanny at their first dinner party. Education and experience spoiled her style and made her tedious. So we will not count her.

Many notable women owe their love of learning to a father's teaching, as Elizabeth Carter, the famous linguist, and Matilda Betham, author and artist. Yet all in the best sense educated themselves.

Maria Edgeworth (1767–1849) was trained carefully by her eccentric and conceited father; their lives blended, their names cannot be separated. "He gave her the most bracing kind of education, moral and intellectual." In one of his frequent letters he says, "I wish to communicate to you what little knowledge I have acquired, that you may have a tincture of every species of literature, and form your taste by choice and not by chance." He always talked with her as an equal, suggesting the subjects upon which as a child she was to write for his criticism. She always told him her first rough plan, he wanted to judge of the bare skeleton, then would give it to her to fill out.

Mr. Day, a learned man still more crotchety than Mr. Edgeworth, was interested in "Miss Maria," to whom he opened his library and enjoyed directing her studies.

The little girl was also sent to a fashionable boarding-school where she underwent all the usual tortures of back-boards, iron collars, and dumb-bells, with the unusual one of being hung by the neck to draw out the muscles and increase the growth—a signal failure in her case. Like Miss Brontë she was a tiny woman. She always had unusual powers of concentration and at this school would sit absorbed in her book while the other children were romping round her, as in after years she was obliged to do her literary work in the sitting room where all the family were required to assemble. As there were eighteen children who lived to grow up, that sitting room must have been a trying place for the young author, and it was well she possessed such capacity for abstraction.

She was early noted for her entertaining stories, and delighted to keep her schoolmates awake at night with her improvised tales,—a sure proof of their charm.

You remember that both Scott and Turgénief the great Russian novelist, owned their indebtedness to this little lady. Sir Walter averred it was her tender, humorous, admirable delineations of Irish character that led him to try to do the same thing for his own country. And the Russian said he should never have written about the woes of the peasantry of his land if he had not been inspired by what Miss Edgeworth had done. If you want to know more of her, read Miss Thackeray's sketch.

Mary Somerville, (1780–1872) has always interested me greatly. I want no more delightful reading than her "Personal Recollections", edited by her daughter. "A woman of indomitable energy and perseverance, by which in her ardent thirst for knowledge she overcame obstacles apparently insurmountable, at a time when well-nigh totally debarred from education."

But she would be educated,—

"Though father and mither and a' should go mad,"

and she succeeded in becoming the most learned woman in England. She was interested in everything ; science, art, literature. What a grand nature; what a big brain; what appreciation of the world she lived in; always progressing; always ready for more knowledge! To condense from her daughter's words and her own inimitable narrative, gives but a faint idea of her struggles, her ambition, her versatility. Her mother did not forbid her reading, but an old maid aunt did disapprove, saying, "I wonder you let Mary waste her time in reading, she never sews more than if she were a man." So she was sent to the village school to learn plain needle-work; and afterward the house linen was given into her charge to make and to mend. Mary thought it unjust that women should have been given a desire for knowledge, if it were wrong to acquire it.

Among their books, she found Chapone's "Letters to Young Women," and resolved to follow the course of history there recommended. One in French she read with the help of a dictionary. The village school-master taught her a few weeks in the winter evenings, but only the ordinary studies; he taught Latin and navigation, *but only to boys*. She was allowed to learn the use of two small globes and at night she spent many hours by her window studying the stars by the aid of the celestial globe. She also taught herself Latin enough to read "Cæsar's Commentaries."

Her uncle, Dr. Somerville, was the first friend or relative who approved of her ambition. She had the courage to tell him, when visiting at his home, of her efforts to learn Latin, and he assured her that in ancient times many women in England had been distinguished scholars, and that if she would go to his study an hour or two before breakfast, he would read Virgil with her. She says she was never happier in her life than during visits to this uncle.

Strange to say she found in an illustrated magazine of fashions, an introduction to the great study of her life. She was invited to call on a young lady and see some fancy-work she was doing. I will now give her version. "I went next day, and after admiring her work and being told how it was done, she showed me a monthly magazine with colored plates of ladies' dresses, charades, and puzzles. At the end of a page I read what appeared to me to be simply an arithmetical question; but on turning the page I was surprised to see strange looking lines mixed with letters, chiefly x's

and y's and asked, 'What is that?' 'Oh,' said Miss Ogilvie, 'it is a kind of arithmetic; they call it algebra; but I can tell you nothing about it.'"

Her persistency in finding out all that was to be known about algebra and geometry after this was marvelous. She sat up so late studying when she had at last obtained a "Euclid" that her candle had to be taken away from her as soon as it was time for her to be in bed. Then she would depend on her memory and demonstrate a certain number of problems every night. Her father was distressed and said to her mother, "Peg, we must put a stop to this, or we shall have Mary in a strait-jacket one of these days. There was X., who went raving mad about the longitude!"

With all this fervor for study, Mary was a healthy, natural, fun-loving girl and never devoted herself exclusively to her favorite study. She was passionately fond of poetry, especially Shakspere and Dante; read the Greek dramatists in the original; was a good musician; painted well from nature; was skilled in house-keeping and sewing, making all her own dresses, even for balls; fond of dancing and "never without partners;" did exquisite pieces of fancy-work; womanly in every way.

Until her second marriage she never had any sympathy in her studies in her own home, and Mr. Somerville's sister wrote when told of the engagement that she "hoped Mary would give up her foolish manner of life and studies and become a useful and respectable wife."

Even in later years she did not escape criticism; after publishing her "Physical Geography" she was preached against by name in York Cathedral, for holding heretical theories on geology. What she achieved by her self-gained education, the books she wrote, the honors she received, her friendships with noted scientists of her time, her foreign travel, and interesting records of experiences, her beautiful old age, and her lasting influence,—all this must merely be hinted.

Caroline Herschel (1750–1848), another woman distinguished for her astronomical researches, was the ideal sister, and through her devotion to her brother William, she educated herself to be his assistant, his amanuensis, his willing slave. As a child she often stood freezing on the shore to see her brother skating on the Stadtgraben till he chose to go home; in after life, she would stand beside his telescope in the nights of mid-winter to write down his observations when the very ink was frozen in the bottle. By sheer force of will and devoted affection, she learned enough of mathematics and of methods of calculation to be invaluable to him.

During one of her brother's vacations she hoped to receive a little instruction, but he was too weary after his winter's work. So he would retire to bed with a basin of milk, or glass of water, and Smith's "Harmonies of Nature" or Ferguson's "Astronomy," and his first thoughts on rising were how to obtain instruments for viewing those objects, himself, of which he had been reading. She had a remarkably fine voice and could have succeeded as a public singer; she also longed to support herself as a music teacher, but she says, "I was much hindered in my musical practice by my help being continually wanted in the execution of the various contrivances. I found that I was to be trained as an assistant astronomer, and, by way of encouragement, a telescope adapted for 'sweeping' was given me. I was to sweep for comets." She did discover eight.

But she never thought of fame for herself. When William was polishing mirrors she would feed him, puttings bits in his mouth, or read aloud his favorite books. She polished the brass of the instruments, ran to the clock, measured the ground with poles, ground mirrors, and all with real enthusiasm, because it would help her brother.

Her mother was not willing that she should be educated, denying her all privileges for study; but she was well-trained in every department of housekeeping and was always a famous knitter.

After sixteen years of unselfish devotion to her brother, he married, and she afterward lived in lodgings, still 'minding the heavens' for his sake, but necessarily sad and lonely. She made three elaborate catalogues of stars star clusters, and nebulæ, and was duly honored by various astronomical societies. But she lived only for her brother and his advancement, caring nothing for her own distinction. She was educated by affection. Her dominant idea was always the same. "I am nothing, I have done nothing; all I am, all I know, I owe to my brother. I am only the tool which he shaped to his use—a well-trained puppy-dog would have done as much."

This brief outline is condensed from her memoir by Mr. John Herschel, and a Life-Study by M. Betham Edwards.

After thinking over a long list of women, I have decided to select George Sand and—Mary Lyon! for a closing contrast. No two could be more unlike, more exactly opposite in ancestry, education, character, and general surroundings. Taine gives this idea. Tell me the climate, the epoch, the environment, and I show you the man. These two women, each so strong in her own way, are most striking illustrations of his belief.

At the time George Sand appeared, there was "in France, above all other countries, a tropical luxuriance of literary production:" Victor Hugo, Theophile Gautier, Alfred de Musset, etc. Her curiously mixed lineage, led naturally to the combination that made her just what she was. In her veins ran the blood of heroes, kings, artists, nobles, grisettes; all was irregular, wild, impulsive, undisciplined. With this came genius, courage, and many fascinating qualities.

Her father a handsome, accomplished, unprincipled army officer, her mother a dark-eyed, passionate, uneducated woman, the daughter of a poor bird-seller. Their child was named for the decorous grandmother, Aurora, the only person of irreproachable life in the entire connection. There was no sympathy between the two women except their intense love for the beautiful little girl.

After her father's sudden death, it was decided that Aurora should remain in her grandmother's home at Nohant. The special bent of a nature is soon developed. Before she could read, she loved to lisp out wondrous tales conjured out of her vivid imagination; later she would tell long, rambling stories, full of romance and rhapsody. "A fault," she said, "which I contracted then, and have never lost." Was it not rather an uncontrollable, inborn impulse? At eight she tried to write out one of these stories and her fond grandmother saw in it proofs of genius.

There was always a strong devotional tendency in this queer make-up. Discovering that Santa Claus was only a myth, she was deeply grieved. But she soon raised altars of stone and moss in a corner of the old garden to an imaginary deity whom she named Corambe!

And what education was hers? Most important was the education from nature in her country home, a place she never tired of describing in her novels; her father's old tutor gave her a somewhat desultory training in the rudiments; then came a few winters in Paris, with the despised accomplishment lessons and the detested dinner-parties, where her grandmother's venerable friends gossipped and took snuff. At thirteen she was sent to a convent where

she figured first as "Madcap," then as "Saint Aurora," for she had a period of intense religious interest and wished to become a nun! Of serious religious education she received none at all. On her return, she educated herself by miscellaneous reading. Is the rest of her life a puzzle to any one? She says herself, "What we call fatality is the character of the individual; the character of the individual is his organization, and the organization of each of us is the result of a mixture or joining of races and the modified continuation of a succession of types."

On the other hand, the ancestors of Mary Lyon (1797–1849), were of irreproachable character; as far back as can be traced, "all were followers of Christ." Her maternal grandfather was "eminently pious;" his six children all became Christians in early life. His father and his son each bore the name of Isaac; each held the office of deacon. And it was the same story all through; on both sides you find ministers, deacons, and praying, God-fearing women. Her own father was never known to speak an angry word; was often sent for, to pray with the sick and dying. Her mother was a person of strong mind and active piety. Mary Lyon's childhood was spent on a rock-bound, upland farm. She has well described that mountain-home and her mother's prayers day by day, for her fatherless children.

Her opportunities for education were limited to the usual "deestrick" school of the country. But she would learn, for she was born a student; so she contrived to stay with relatives who lived near an academy, help about the work to pay board, and study tremendously, unceasingly, dangerously. Few constitutions, fewer brains, could have stood such a strain. She slept only four hours out of the twenty-four. She seemed also to be born religious. There were then no Sabbath Schools, and on pleasant Sundays, the "nooning" was spent in the woods, or the "grave-yard," quite a social rendezvous still for villagers. But Mary stayed by herself, wondering at the levity of her friends.

She was also a born teacher, and her services began to be eagerly sought. As soon as she gained a little money, she would go somewhere to study up some branch in which she felt herself deficient. At first she was too much like the traditional blue-stocking; no order; no interest in such trivial matters as clothes.

You must read her life compiled by ex-President Hitchcock, of Amherst College, to realize how bravely she conquered her bad habits, developed her good qualities, and educated herself, that she might educate others. More than three thousand pupils were trained and helped by her, because she had so earnestly, so conscientiously, helped herself. I leave the lesson from these lives to be drawn by my readers.

EARTHQUAKES AND VOLCANOES.

FELIX L. OSWALD, M. D.

The eruption of subterranean forces has largely contributed to shape the surface of this planet, and continues to counteract the leveling influence of the flowing waters, the brooks, and rivers, which yearly carry enormous quantities of diluvium from the mountains to the sea. The upheaval of lofty mountain-ranges of igneous rocks, speaks of a time when the force of those eruptions must have shaken this globe as the bursting of a boiler would shake an engine house. Even within the period of authentic history the heaving earth has given birth to new mountains, and more than two thousand years ago our forefathers began to speculate on the probable cause of such phenomena.

The first recorded theories are little more than random guesses at the mysteries of the nether world. One Grecian philosopher, Anaxagoras, ascribed volcanic disturbances to "storm-winds caught in caves and struggling in vain for an outlet." The elder Pliny speaks of a "ferment caused by stagnant water"—perhaps an allusion to the explosive gases of deep mines. The lower classes held to the myth of Seismos, the imprisoned Titan, who now and then upheaves the rocks in his desperate attempts to regain the freedom of the upper world; and Cæsar Scaliger, an Italian scholar of the sixteenth century, enumerates not less than eighteen different earthquake theories, propounded by the philosophers of his own country.

That number has since been reduced to three, which we will try to state as briefly as possible. Sir Humphrey Davy, a British chemist and geologist, held that the metallic bases of earth and alkalies in the interior of the globe, might occasionally come in contact with the moisture of the upper strata, and, by combining with the oxygen of that moisture, evolve heat enough to generate steam. George Cuvier, the versatile French naturalist, was the first to advance the hypothesis that the gradual cooling of the earth's crust might involve a contraction, which would now and then cause the strata of primary rocks to collapse with a shock sufficient to shake a continent. Many modern geologists, however, hold that the gradual infiltration of moisture and its action upon the heated rocks of the nether world, is sufficient to account for all the phenomena of volcanic eruptions.

The latter theory seems to be supported by the remarkable circumstance that active volcanoes are found only on islands or in the immediate neighborhood of the sea. The traveler Schlagintweit, some thirty years ago, published an account of a burning mountain which the natives of Thibet pretended to have discovered in the highlands of Koko-Nor, but the investigations of a British exploring party failed to confirm that report, and we must assume that there is no proof of the existence of any *active* volcano at a distance of more than three hundred miles from the sea. The average distance is less than eighty miles, since four-fifths of all known volcanoes are found on islands, many of which seem to owe their existence to an eruption upheaving the bottom of the sea. A long chain of such volcanoes runs from Behring's Strait along the east coast of Asia to the Sunda Archipelago, and thence westward to the Mediterranean and the west coast of Africa. There are volcanoes on the South Sea Islands and in the Arctic Sea, and burning mountains have been seen amidst the inaccessible Ice-Alps guarding the approach to the South Pole.

Not all "active volcanoes" are in a constant state of eruption. Nine out of ten smoulder for years, emitting thin curls of smoke, which only now and then break forth in dense masses, announcing the advent of a fire-storm of lava and flaming cinders. Others, like the crater of Stromboli in the southern Mediterranean, eject stones and ashes in a constant shower. Kilauea, in the island of Hawaii sends up the smoke of an ever-seething caldron of fluid lava, which at short intervals rises in huge bubbles or shoots up in jets that spatter the surrounding rocks with a spray of liquid fire.

The most restless volcano of our own continent is Mount Sangay in the Peruvian Andes, about fifty miles due east from Guayaquil. "The crater of Sangay," says a recent explorer, "works day and night, and with the steadiness of a self-regulating steam mill. Wherever we rested, the dark, gray ash-clouds which the north wind drifted toward Cuenca preserved the uniformity of its outline like the ridge of a sharply defined mountain range. As seen from the edge of the crater the eruptions seem to come by fits and starts, but the aggregate of the matter ejected in any given minute remains about the same from morning till night. Pauses there are none; the hot air blast comes in a soughing draft, with a heavier puff at intervals of fifteen to twenty seconds. The furnace of Sangay has three larger and about fifty smaller vents that discharge an aggregate of at least forty pounds of ashes per second, or fifteen hundred tons each day of the year."

But less active volcanoes occasionally make up for lost time. On the first day of June, 1803, the volcano of Cotopaxi ejected more than a cubic mile of bituminous stones, and as far as Loreto, thirty miles from the foot of the mountain, covered the ground with a ten-inch layer of volcanic ashes. The eruption of Vesuvius in 1794 yielded at least forty million cubic feet of pumice stones; and in 1783 Skapta Jökull in Iceland opened a bombardment which lasted with short pauses for nearly two years; and besides obliterating the highland valleys for miles around, gave rise to two lava rivers, respectively forty and fifty miles long, and from seven to twelve miles broad. The total result of the eruption exceeded thirty cubic miles, but was dwarfed by the outbreak of a pre-historic crater which inundated southern Oregon with thirty thousand square miles of lava streams.

Every larger volcanic eruption is attended with tremors of the earth often extending for large distances from the center of the disturbance, and it has, indeed, been estimated that earthquake shocks of various degrees of violence occur every day in the year; but the centers of their greatest frequency are extremely unequally distributed. In proportion to its size the Island of Java contains a larger number of active volcanoes than any other region of the globe, and in some districts of the west coast, in the regency of Samarang, for instance, the inhabitants have become as used to an occasional tremor of the ground as our country to a weekly thunder-storm in summer or a snow-storm in winter, while Belgium has thus far escaped with an average of five shocks per century, and central Russia with even less: perhaps a dozen tremors during the thousand years of her authentic history. And though no portion of the earth's surface is entirely exempt from the visitation of earthquakes, the inland regions of the larger continents, as well as the alluvial plains of eastern America and northern Europe, enjoy a perfect immunity from those disastrous outbreaks of the volcanic forces which have convulsed vast areas of Plutonic mountain-regions in the coast lands of the eastern Mediterranean and western South America.

The Charleston earthquake, for instance, though far exceeding the destructiveness of any previous shock experienced within historic times on the Atlantic slope of our national territory, can no more be compared to the cataclysms of the volcanic regions proper, than the equinoctial rainstorms of our lake shore states can be compared to the tornadoes of the Indian Ocean. The business blocks of Charleston were the conventional brick structures of our eastern seaboard towns, four, often five and six stories of an incombustible, but fragile material, and supported only by a slender frame-work of cross-beams. Many private residences were mere shells of "pine boards in picturesque combinations." The board shanties of the negro quarters had often not one whole length piece of timber in any of their four walls, but were nailed together with all sorts of patchwork planks and weather-worn shingles. Yet of such buildings the earthquake spared six in ten and merely cracked the front walls of half the "wrecked houses." The five thousand stone buildings which were demolished in Caracas by the earthquake of 1812, had been built with a special view to the emergencies of a "shaky region." They were mostly one story and massive enough to weather a West India hurricane. Their basements were reinforced with corner buttresses, they had no projecting chimney-stacks, no minaret turrets, no sloping roofs. In many blocks iron girders ran from house to house, crossed by vertical bars, morticed into the solid masonary, and connecting in all two-story houses with a second line of horizontal girders. Yet nine-tenths of those fortress-like buildings were not only cracked but rent and instantly overthrown by a shock that lasted hardly a quarter of a minute.

About a hundred years ago the volcano of Tuspan in southern Mexico ceased to smoke, as if its crater had somehow been obstructed; and a few days after, the plains of Michoacan, more than a hundred miles further west, began to heave and throb in a way that sent the inhabitants flying to the highlands, in time to avoid an explosion that sent the rocks in every direction and raised a district of four square miles more than five hundred feet above its former level. Above this new table-land, volcanic peaks rose to a still greater height, one of them, Mount Jorullo, or Korollo, as much as two thousand feet above the former plain. The thunders of the outbreak were heard at a distance of six hundred miles, and on the heights of the neighboring mountains, where the refugees had gathered by thousands, the uproar resembled that of a monstrous cannonade, a series of deafening and incessant explosions. In 1812 the southwest coast of Jamaica was visited by a similar earthquake. For a distance of eighty-five miles the massive rocks of the coast-range were shaken down in avalanches of debris that splashed into the sea and made the shore almost inaccessible in a bay which formerly had afforded anchorage to the largest ships. The Padayang Range on the island of Java was partly swallowed by the earthquake of 1772. After a concussion, felt all through the Sunda archipelago, the earth opened, and a district fifteen miles long and six broad began to collapse toward the chasm, and an area of eighteen square miles was actually engulfed, with all its woods, fields, and houses. The total loss of life on that occasion has been variously computed at fourteen to twenty thousand, but was far exceeded in 526, when Antioch, the largest city of western Asia, was utterly destroyed by an earthquake shock which in ten seconds did more damage than the bloodiest war of that century. The magnificent city was instantly turned into a pile of chaotic debris. One third of the inhabitants perished on the spot, and Gibbon, in his history of Rome, estimates the total number of the victims at *more than two hundred thousand*.

That earthquake is said to have been predicted by the philosopher Dion Damascius. It was afterward remembered that several springs in the neighboring hills had suddenly failed, that birds had forsaken their rookeries in the old city walls, etc., as, indeed, after every similar catastrophe, the survivors have collected all sorts of omens, in the hope of thus finding a basis for future predictions.

On the two days preceding the destruction of Charleston, a peculiar smoke-like haze veiled the southern Alleghanies, and in Peru a similar mist has been so often observed on the eve of a volcanic catastrophe that the natives designate

it by a special name, and regard it as a pretty reliable prognostic, either of an earthquake or a volcanic eruption. If the expanding vapor of the nether world can upheave a mountain range, it is possible enough that they can force their way through the fissures and caves of such mountains, till those outlets become insufficient to ease the strain, which at last vents itself by the disruption of the obstructing strata. Thus the steam of a superheated boiler will fizz through the seams of the rivets, before bursting its fetters, and the closing of the safety-valve would precipitate the catastrophe, as the outbreak of an earthquake is hastened by the obstruction of a volcanic crater. Nor is it impossible that the subterranean channels of springs, especially of hot springs, may constitute such vents and that their sudden failing in the highlands of Antioch was a true omen.

Barometrical indications would be still more reliable, if they had a more exclusive significance. But the sudden sinking of the mercury may indicate the approach of an atmospheric storm, as well as of a subterranean disturbance, though experience has proved it a suspicious circumstance if it should coincide with a decrease, instead of increase, of temperature, and with gusty and hazy, rather than sultry weather. A Canadian meteorologist claims to have predicted the Charleston earthquake, basing his inference on the fact that certain planets would at that time be "in conjunction with the sun, and by the joint influence of their attraction displace the earth's center of gravity"; but it has been demonstrated that similar conjunctions would give us Charleston earthquakes at the rate of a dozen a year, and if the prophet should answer that an even greater number *does* occur—somewhere or other, we would be as wise as before, unless the omen should enable us to predict the locality as well as the time of the disturbance.

In volcanic regions the advent of an earthquake is often heralded by strange subterranean noises, hollow rumblings, and peculiar booms, as of a smothered explosion. A hissing noise, too, like that produced by water upon red-hot iron, has sometimes been heard, and a sound which has been compared to the bumping of a heavy chain, dragged to and fro—possibly an effect of the irruption of steam into successive chasms or caves of the interior earth.

In 1842 the explosions of Mount Sangay ceased for two weeks, during which the natives of northern Guatemala were frightened by appalling noises that continued day and night for nearly half a month, but were not followed by the expected earthquake, at least not anywhere near the apparent center of the disturbance, the village of Vera Paz. At the end of the second week the crater of Sangay resumed its activity, and soon after the Guatemala thunders died away, but will long be remembered as the "Roars (*Los Bramidos*) of Vera Paz". Before the eruption of the West Indian volcanoes in 1812, subterranean booms were heard in the Mississippi Valley, and a few minutes before the first shock of the Charleston catastrophe the inhabitants of the southern suburbs heard a rumbling noise like that of an approaching freight-train, though there are instances on record of more disastrous earthquakes having passed off without any audible noise but that of the tumbling house-walls. The Lisbon earthquake was of that silent variety and began its work of destruction with the suddenness of a masked battery.

The premonitory instincts of animals have now and then enabled their masters to anticipate the outbreak of a volcanic catastrophe. There is a tradition that a few hours before the great eruption of the Souffrière on the Island of St. Vincent, a troop of cows came down the mountain in panic fright, and bursting through the ranks of their would-be captors continued their headlong gallop till they reached the open plains. On the pastures of Caracas, horses grazed quietly while the city was shaken to its foundation rocks, but perhaps only for the reason that they had nothing to fear. On level ground a quadruped can maintain its equilibrium in a storm that would overthrow the stoutest tree; but in the mountains, where destruction lurks in every shaking cliff, the case differs, and there are anecdotes of horses refusing to pass certain points of a highland trail which a few minutes later was obliterated by the fall of a rock-avalanche. The barber Perez was a citizen of Lima, who was quietly plying his trade, when the dog of a stranger suddenly set up a heart-breaking howl, and after listening for a moment, as for some distant noise, broke forth into that strange howl again. The dog's owner turned pale, but kept his chair and never said a word; but Master Perez, as under the impulse of an inspiration, suddenly rushed from the house and stopped in the middle of the street. "*Cuidad, verinos,*—take care, neighbors!" he shouted at the top of his voice, "there is trouble coming!"—and in the next moment the houses came down on all sides. His customer was a visitor from Callao, and at the time when his dog set up that strange howl, the sea-port of Lima had been struck by a tidal wave which swept away all but thirty of its five thousand inhabitants (Oct. 10, 1746).

The progressive cooling of the earth's crust warrants the belief that on the whole, earthquakes are becoming less frequent and violent, a fact which would be in accordance with that tendency to improvement, which the Creator has impressed upon the physical as well as moral universe. It is true, that the short-sightedness of man has here and there thwarted the progress of that tendency, as in the coast lands of the Mediterranean, where the wanton destruction of forests has desolated a million square miles of land in the very garden region of the ancient world. It has even been suggested that this very waste might have increased the frequency of earthquakes in countries which were once densely covered with rain-absorbing forests, but now surrender their drainage to the naked soil in districts where vertical fissures may establish a communication with the subterranean fire-world. Previous to the destruction of Pompeii, Mount Vesuvius was supposed to be an extinct crater. Previous to A. D. 425, no serious volcanic disturbances had been experienced in the neighborhood of the spot where Selencus Nicator founded the city of Antioch, which has since *seven times* been destroyed by earthquakes.

In the United States, too, the law of immediate demand and supply has already led to the destruction of at least two-thirds of our primeval forests, and considerably increased the danger of winter floods and summer draughts. But the silent might of a higher law may ultimately prevail and make this earth a safer as well as a fairer home for her children.

THE GOOD BISHOP.

ARRANGED BY MARY S. BINGHAM.

Victor Hugo's bishop has been called the best character in fiction; perhaps because it approaches so near the Divine character.

This wonderful life fills the opening pages of that marvelous book "Les Misérables."

When the good bishop was installed and came to take possession of his palace, he found adjoining it the parish hospital, a small single-storied house. Three days after his arrival the bishop visited it, and when his visit was over asked the director to be kind enough to come to his house.

"How many patients have you at this moment?" he asked. "Twenty-six, Monseigneur."

"The number I counted," said the bishop.

"The beds are very close together," the director continued.

"I noticed it."

"The wards are only bedrooms, and difficult to ventilate."

"I thought so."

"And then, when the sun shines, the garden is very small for the convalescents."

"I said so to myself."

"During epidemics, we have as many as one hundred patients, and we do not know what to do with them."

"The thought occurred to me."

"What would you have, monseigneur!" the director said, "we must put up with it."

This conversation had taken place in the dining hall on the ground floor. The bishop was silent for a moment, and then turned sharply to the director. "How many beds," he asked him, "do you think this room alone would hold?"

"Monseigneur's dining room?" the stupefied director asked.

The bishop looked around the room and seemed to be judging its capabilities.

"It would hold twenty beds," he said, as if speaking to himself, and then, raising his voice, added,—"Come, director, I will tell you what it is. There is evidently a mistake. You have twenty-six persons in five or six small rooms. There are only three of us, and we have room for fifty. There is a mistake, I repeat, you have my house and I have yours. Restore me mine."

The next day the twenty-six patients were installed in the bishop's palace, and the bishop was in the hospital.

The bishop, though he had converted his coach into alms, did not the less make his visitations. One day he arrived at Senez, which is an old Episcopal town, mounted on a donkey; his purse which was very light at the time, had not allowed him any other equipage. The mayor of the city came to receive him at the door of the bishop's palace and with scandalized eyes saw him dismount. A few cits were laughing round him. "M. Mayor and gentlemen," the bishop said, "I see what it is that scandalizes you. You consider it great pride in a poor priest to ride an animal which our Savior once upon a time bestrode. I did so through necessity, I assure you, and not through vanity."

His doctrine might be summed up nearly as follows:—

"Man has upon him the flesh which is at once his burden and his temptation. He carries it with him and yields to it. He must watch, restrain, and repress it, and only obey it in the last extremity. In this obedience there may still be a fault; but the fault thus committed is venial. It is a fall, but a fall on the knees, which may end in prayer. To be a saint is the exception, to be a just man is the rule. Err, fail, sin, but be just. The least possible amount of sin is the law of man; no sin at all is the dream of angels. All that is earthly is subjected to sin, for it is gravitation."

He said, "Teach the ignorant as much as you possibly can: society is culpable for not giving instruction gratis, and is responsible for the night it produces. The soul is full of darkness, and sin is committed, but the guilty person is not the man who commits the sin, but he who produces the darkness."

A tragical event occurred at D——. A man was sentenced to death for murder. He was a wretched fellow, not exactly educated, not exactly ignorant, who had been a mountebank at fairs and a public writer. On the eve of the day fixed for the execution the prison chaplain was taken ill, and a priest was wanted to assist the sufferer in his last moments. The curé was sent for, and it seems that he refused saying, "It is no business of mine, I have nothing to do with mountebanks, I am ill, too, and besides, that is not my place." This answer was carried to the bishop, who said, "The curé is right, it is not his place, it is mine." He went straight to the prison, entered the mountebank's cell, called him by name, took his hand, and spoke to him. He spent the whole day with him, forgetting sleep and food while praying to God for the soul of the condemned man. He told him the best truths, which are the most simple.

He was father, brother, friend—bishop only to bless.

On the morrow, when they came to fetch the condemned man, the bishop was with him. He followed him, and showed himself to the mob in his purple hood, and with the episcopal cross round his neck, side by side with the rope-bound wretch. He entered the cart with him, he mounted the scaffold with him.

The sufferer so gloomy and crushed on the previous day, was radiant; he felt that his soul was reconciled, and he hoped for heaven.

The bishop embraced him and at the moment when the knife was about to fall said, "The man whom his fellowmen kill, God resuscitates. He whom his brothers expel, finds the Father again. Pray, believe, enter into life! The Father is there!"

On returning to his humble abode, which he called smilingly his palace, he said to his sister, "I have just been officiating pontifically.

At times he soliloquized, and stammered unconnected sentences in a low voice.

Here is one which his sister overheard and treasured up. "I did not believe that it was so monstrous. It is wrong to absorb one's self in the divine law so greatly as no longer to perceive the human law. Death belongs to God alone. By what right do men touch that unknown thing?"

Sometimes he hoed in the garden, at others he read and wrote. He had only one name for both sorts of labor, he called them gardening. "The mind is a garden," he would say.

It was said of the bishop, "it was a festival wherever he appeared," it seemed as if his passing had something warming and luminous about it; old men and children came to the door to greet the bishop as they did the sun. He blessed

them and they blessed him, and his house was pointed out to anybody who wanted anything. Now and then he stopped, spoke to the little boys and girls, and smiled on their mothers.

He visited the poor as long as he had any money; when he had none he visited the rich.

"The finest of all altars," he would say, "is the soul of an unhappy man who is consoled and thanks God."

His house had not a single door that locked. The door of the dining room which opened on the cathedral square, had formerly been adorned with bolts and locks like a prison gate.

The bishop had all the iron removed, and night or day the door was only hasped; the first passer-by, no matter the hour, had only to push it.

The bishop's idea was explained, or at least indicated, by these lines which he wrote on the margin of a Bible: "This is the distinction: the physician's doors must never be closed, the priest's door must always be open."

In another book entitled "Philosophy of Medical Science," he wrote this other note: "Am I not a physician like them? I also have my patients; in the first place, I have theirs, whom they call the sick, and then I have my own, whom I call the unhappy." Elsewhere he also wrote, "Do not ask the name of the man who seeks a bed from you, for it is before all, the man whom his name embarrasses that needs an asylum."

Here naturally comes a fact which we must not omit, for it is one of those which will enable us to see what manner of man the bishop was. After the destruction of the band of Gaspard Bés, which had infested the gorges of Ollioules, Cravatte, one of his lieutenants, took refuge in the mountains. His brigandage desolated the country, and the gendarmes were in vain placed on his track; he constantly escaped. In the midst of all this terror, the bishop arrived on his visitation, and the mayor came to him and urged him to turn back. Cravatte held the mountain and there was danger even with an escort. It would be uselessly exposing three or four unhappy gendarmes.

"For that reason," said the bishop, "I intend to go without escort."

"Can you mean it?" the mayor exclaimed.

"I mean it so fully that I absolutely refuse gendarmes, and intend to start in an hour."

"Monseigneur, you will not do that."

"There is in the mountain," the bishop continued, "a humble little parish that I have not visited for three years. They are good friends of mine, and quiet and honest shepherds. They want to hear about heaven every now and then, and what would you think of a bishop who was afraid? What would they say if I did not go?"

"But, Monseigneur, the brigands."

"Ah," said the bishop, "you are right; I may meet them. They too must want to hear about heaven."

"Monseigneur, they will plunder you."

"I have nothing."

"They will kill you."

"A poor old priest who passes by muttering his mummeries, nonsense, what good would that do them?"

"Oh, good gracious, if you were to meet them!"

"I would ask them for alms for my poor."

"Monseigneur, do not go. In Heaven's name do not go, for you expose your life."

"My good sir," said the bishop, "is that all? I am not in this world to save my life, but to save souls."

There was no help for it, and he set out. When he returned he said, "Never let us fear robbers or murderers. These are external and small dangers; let us fear ourselves; prejudices are the real robbers, vices the true murderers, the great dangers are within ourselves. Let us not trouble about what threatens our head or purse, and only think of what threatens our soul."

What enlightened this man was his heart, and his wisdom was the product of the light which emanates from it. He had no systems; but abundance of deeds.

Here Jean Valjean, the hero of the story, is introduced as an outcast. He comes to the little town of D—— about an hour before sunset. It would be difficult to meet a wayfarer of more wretched appearance. He might be forty-six or forty-eight years of age. No one knew him; he was evidently passing through the town. Where did he come from? The man must have walked all day for he seemed very tired. He seeks shelter and food, they are refused—there is no room for him in the inn. Already it is known he is Jean Valjean, the galley-slave.

An old lady directs him to the bishop's palace.

There is a loud rap at the front door. "Come in," said the bishop.

A man entered whom we already know; it was the traveler whom we saw just now wandering about in search of shelter.

He entered and stopped, leaving the door open behind him. He had his knapsack on his shoulder, his stick in his hand, and a rough, bold, wearied, and violent expression in his eyes. The fire-light fell on him, he was hideous, it was a sinister apparition.

He said in a loud voice, "My name is Jean Valjean. I am a galley-slave, and have spent nineteen years in the bagne. I was liberated four days ago and started for Pontarlier which is my destination. I have been walking for four days since I left Toulon, and to-day I have marched twelve leagues. This evening on coming into town, I went to the inn, but was sent away in consequence of my yellow passport. I went to another inn, and the landlord said to me, 'Be off.' It was the same everywhere, and no one would have any dealings with me. I went to the prison, but the gaoler would not take me in. I got into a dog's kennel, but the dog bit me and drove me off, as if it had been a man; it seemed to know who I was. I went into the fields to sleep in the starlight, but there were no stars. I thought it would rain, and as there was no God to prevent it from raining, I came back to the town to sleep in a door-way. I was lying down on a stone in the square, when a good woman pointed to your house, and said, 'Go and knock there.' What sort of a house is this? Do you keep an inn? I have money, one hundred nine francs fifteen sous, which I earned at the bagne by my nineteen years' toil. I will pay, for what do I care for that, as I have money. I am very tired and frightfully hungry, will you let me stay here?"

The bishop turned to the man. "Sit down and warm yourself, sir. We shall sup directly, and your bed will be got ready, while we are supping."

"Is it true? What? You will let me stay, you will not turn me out, a convict, you call me *sir*? You do not 'thou' me. 'Get out, dog,' that is what is always said to me."

Each time the bishop said the word *sir* with his gentle voice, the man's face was illumined. *Sir* to a convict is the glass of water to the shipwrecked sailor of the Meduse. Ignominy thirsts for respect.

"Monsieur le Curé," said the man, "you are good and do not despise me, you receive me as a friend, and light your wax candles for me, and yet I have not hidden from you whence I come, and that I am an unfortunate fellow."

The bishop gently touched his hand. "You need not have told me who you were; this is not my house, but the house

of Christ. This door does not ask a man who enters whether he has a name, but if he has sorrow; you are suffering, and so be welcome. And do not thank me, or say that I am receiving you in my house, for no one is at home here excepting the man who has need of an asylum. I tell you, who are a passer-by, that you are more at home here than I am myself, and all that is here is yours. Why do I want to know your name? Besides, before you told it to me you had one which I knew."

"Is that true? You know my name?"

"Yes," the bishop answered, "you are my brother."

"Monsieur le Curé," the man exclaimed, "I was very hungry when I came in, but you are so kind that I do not know at present what I feel; it has passed over."

The bishop said, "You have suffered greatly."

"Oh! the red jacket, the cannon ball on your foot, a plank to sleep on, heat, cold, labor, the set of men, the blows, the double chain for a nothing, a dungeon for a word, even when you are ill in bed, and the chain gang. The very dogs are happier. Nineteen years! and now I am forty-six and at present the yellow passport!"

"Yes," said the bishop, "you have come from a place of sorrow. Listen to me; there will be more joy in heaven over the tearful face of a repentant sinner than over the white robes of one hundred just men. If you leave that mournful place with thoughts of hatred and anger against your fellow-men you are worthy of pity; if you leave it with thoughts of kindliness, gentleness, and peace, you are worth more than any of us."

As two o'clock pealed from the cathedral bell, Jean Valjean awoke; he became possessed with the demon of robbery. He had noticed the silver forks and spoons and the great ladle, which had been used on the table. This plate overwhelmed him. He had seen it put in the safe, and the thought of clutching in a moment more than he had earned in nineteen years in prison, was a temptation too powerful.

He rises, creeps to the bishop's bed-room, pauses a moment before the peaceful slumberer. The moral world has no greater spectacle than this, a troubled restless conscience which is on the point of committing a bad action, contemplating the sleep of a just man. He chokes down his compunctions, he seizes the plate-basket, puts the silver in his pocket, and throws the basket away, leaped into the garden, bounded over the wall, and fled.

The discovery in the morning elicits from the bishop only the remark, "I have wrongfully held back this silver, which belonged to the poor."

The man is arrested in the early morning and brought back to the bishop's.

Before the gendarmes could tell their story, the bishop has advanced as rapidly as his great age permitted. "Ah! there you are," he said, looking at Jean Valjean. "I am glad to see you. Why, I gave you the candle-sticks too, which are also silver, and will fetch two hundred francs. Why did you not take them away with the rest of the plate?" He went to the mantel-piece, fetched the two candlesticks, and handed them to Jean Valjean.

Turning to the gendarmes, he said, "Gentlemen, you can retire,"—they did.

To Jean Valjean (the trembling convict) he said, "Never forget that you have promised me to employ this money to become an honest man. Jean Valjean, my brother, you no longer belong to evil, but to good, I have bought your soul of you. I withdraw it from black thoughts and the spirit of perdition, and give it to God."

Jean Valjean left the town as if running away. That night he wept for the first time in nineteen years.

It was stated that on this very night, the mail carrier who arrived at D—— at 3 a. m., saw a man kneeling on the pavement, in the attitude of prayer in front of the bishop's door.

A GLIMPSE OF MEXICO.

W. W. THOBURN.

Our northern cities are like their people, restless, changeable. We build to tear down, that some new idea of the builder may work itself out in brick or stone—to stand, perhaps, until we begin to grow accustomed to it, then to be crowded out by something newer.

It is not so in the southland beyond the Rio Grande. Nature is an autocrat there, and centuries ago, when her children began to build, she drew their patterns for them and they have never changed.

In Mexico there is one way to do everything—the way the fathers did it. A sufficient reason for rejecting any new method or contrivance is that no one ever used it before.

The mass of the people wear clothes patterned like those of their ancestors three hundred years ago. Their adobe houses are the same the conquerors describe. They plough with a rude wooden contrivance made usually of a crotch from a tree, one end sharpened for scratching the ground, the other reaching to the old-fashioned yoke which is tied to the horns of the oxen.

The streets of their cities are narrow and crooked. Their houses open on a court-yard and present unattractive dead walls to the streets. It is into such a city and among such people that I wish to tempt you.

Twenty-five hundred miles toward the equator lands us in the city of Vera Cruz. The air is hot and stifling to northern lungs. The streets are flooded with sunlight. The lazy sea sends scarcely a ripple up the sandy shore. It is a quiet, sleepy town where yellow fever is found the year round, where buzzards are as common as people—a good place to leave.

We take a morning train and spend the day on that wonderful Mexican railroad—the grandest piece of engineering on this continent. At night we have been lifted eight thousand feet above the miasma of the hot lands and have snow-capped peaks for neighbors. Here, by the blue waters of a salt lake, encircled by a belt of rugged peaks, is the oldest city of the New World—the Venice of America—Mexico.

History was not present at the building of this city. She entered with the conquerors in 1520, but tradition goes back farther than history. The valley was settled in the seventh century and the city was founded in 1325. It was first built upon a low, marshy island. It was connected with the main-land by causeways. Canals took the place of streets and joined the busy markets with the lake. When the city was rebuilt after the conquest, many of the canals were closed, and the lake has since receded about two miles from its walls. The new city was built from the ruins of the old, and the Aztec pattern is still apparent. This fact makes the city doubly interesting. Other Spanish-Ameri-

can cities take us back three hundred years, and their quaint old buildings show us the architecture of Spain during the sixteenth century; but the shadows of seven centuries meet us at every corner of these old streets.

Among the strange sights which meet the eyes of a foreigner, none are more striking than the beggars. Beggary is a profession here, a life work from which a man may retire after a while and live on his income. The government is supposed to punish a public beggar, but the law cannot be enforced. At every corner, before every hotel, at the door of every church, are the ever-present mendicants seeking by piteous tones and gestures, to wring a penny from the passing crowd. Sometimes they veil their calling by selling lottery tickets. These tickets are usually for the temporal benefit of some church. I read on one these words,—"Lottery for the benefit of the church of the Holy Ghost." A beggar who always attracted my attention as I passed one of the public buildings, was blind; but prosperous. He usually smoked a fine cigar which he held in one hand while the other was extended for alms. His voice sang an accompaniment between the puffs.

The street cars of the city have as a part of their monopoly the right of way to all the cemeteries. They provide somber funeral cars, draped in black, and seem to regulate the gait of the mules by the social standing of the deceased. A shabby coffin will be hauled through the streets at a full gallop, while a silver-plated one will be moved at the natural gait of the slow animals.

The very poor cannot afford these post-mortem luxuries. They are carried to the cemetery on the shoulders of some stout mourner. In this case the coffin is usually a rented one. It is to be returned after the body has been removed at the grave. Sometimes the rented box does not fit the corpse. In this predicament, the lid is carried behind by some member of the procession. Such an instance came under the writer's notice.

The largest building in the city is the National Palace. It stands on the eastern side of the great square, on the site of an ancient palace of Montezuma. It is historic ground here. Across the square is the palace built by Cortes, now used as the national pawn shop.

The northern side of the square is occupied by the great cathedral, the largest and at one time the richest in the New World. It stands on the site of the old Aztec temple, their greatest *Teocalli*. It was begun in 1573 and completed in 1667. Its cost was two million dollars when laborers were slaves. It contains six altars, five naves, and fourteen chapels. The high altar was formerly the richest in the world and had a lamp worth seventy thousand dollars, and a statue of the Assumption that cost one million dollars. The cathedral is four hundred twenty-six feet long, one hundred seventy-five feet high, with twin towers two hundred feet high.

At the south-eastern corner of the square enters the busy street, formerly a causeway, by which Cortes marched into the city; opposite, is that on which his beaten army retreated on that "sorrowful night." A saloon on this latter street has a sign on which is printed *Noche Triste*. It has both an ancient and a modern significance.

The center of the square is occupied by a public park called Zocalo. It was laid out by the unfortunate Carlotta, the wife of the Emperor Maximilian.

The palace is built of gray stone. It has six hundred feet of frontage. Like most of the buildings in the city it contains but two stories. It has eight hundred rooms and a dozen patios or courts. One of these patios contains a garden in which a famous tree is growing. It is called "El Arbol de los Manitos" or the Tree of the Little Hand. Tradition says that an Aztec king went to war with a neighboring potentate to obtain the seed. But three such trees, it is said, exist in all Mexico. It is supposed to possess wonderful medicinal properties, but its most remarkable attribute is that which gives it its name. Its flower contains a perfect hand. The stamens are joined to form a wrist and palm and then separate into five red fingers.

Brown-faced soldiers guard the entrance to the palace. Their barracks occupy a part of the lower story of the building. The Mexican soldier does not have a brave appearance. He looks as if he were chiefly uniform, and seems to know it. The army is recruited from the prisons. The lower grades of soldiers are criminals serving out their sentences.

Broad stone stair-ways lead from the court-yards to the upper story of the palace. The senate chamber and president's rooms are situated here. All day long the corridors are crowded with officers, gorgeous in blue and gold, with hurrying messengers or with talkative civilians gesticulating with every word, after the true Spanish manner. Soldiers pace before the doors, for this sister republic is largely a soldier government as yet. She descended from a monarchy and has inherited much of the pomp and parade of her ancestor. If a republic is slow to assume new forms, she is also slow to relinquish old ones, and this military republic seems very strange to eyes that have looked in at the White House.

The chambers occupied by the President are the same used by Maximilian, and still contain the imperial furniture. The reception chamber is a large room; the floor is covered by a thick velvet carpet; the walls are hung with a flowered silk tapestry; an immense crystal chandelier is suspended from the ceiling, and numerous mirrors, with heavy gilt frames, hang against the wall. The furniture is ebony and velvet.

The finest room in the palace is the Hall of the Ambassadors. It is three hundred feet long, forty feet wide, and thirty feet high. Six large crystal chandeliers are suspended along its ceiling. Its windows are hung with rich curtains, and between them are life-size portraits of noted men—all Mexicans but one, and that one our own Washington. The ceiling is of heavy dressed-cedar timbers; the floor is waxed as smooth as glass. At one end of the room is a low platform over which is built a large throne, rich with velvet and gold. It is the president's seat. Imported porcelain statuary and furniture complete the room, which in spite of its strange proportions is very attractive.

The man who occupies these apartments must not be judged by his gorgeous surroundings. Porfirio Diaz is the most democratic of Mexicans. He is above most of his countrymen, and is endeavoring to lead them up to his plane. He is a man of middle stature, well built and energetic in his movements, possessing both the extreme politeness of the Spaniard and the reserve of the Indian. His black hair and mustache are slightly tinged with gray. His dark skin reveals his Indian blood. Diaz belongs to the once oppressed race. He is the first Indian successor of Guatemozin. His natural reserve hides much of his true character.

The observer fails to see in this active, busy man, dressed in a neat suit of gray, the twice rebel, twice president; the man who has headed two revolutions, who helped drive the French out of Mexico, who proclaimed religious tolerance, and fostered railroads and public improvements, and who is doing more to raise his country from the depths of ignorance and superstition, than any other Mexican.

Many think his task a hopeless one. His ideals seem to have been formed during his residence in Washington. But the people, his military material, are far below the standard of American citizenship. It is hard for us to understand the degradation of the great mass of Mexicans. I have heard travelers say that even Spain does not show the superstition, the depravity, or the poverty of Mexico.

I stood one day upon the summit of the ancient pyramid of Cholula. The remains of a mighty city were at my feet. It has now dwindled to a few mud huts; but within a radius of a half mile I counted twenty churches. The lives of thousands have been spent in building these useless structures. I have seen Indians bowing before a compound altar formed by an old Aztec idol, topped by a Roman cross and a pendant Christ. One day I entered one of their churches to rest in the cool shade. I was startled to see in the middle of the room a bier. On it lay a wooden image of the Savior, hideously painted. The head, encircled by the crown of thorns, rested on a white pillow. The eyes were open and blood-shot, the tongue was extended, the distorted features were disgusting. The body was covered with a "crazy work" quilt, the feet, which projected from the quilt, were pierced by the nails. While I looked, an Indian entered, crossed himself, and knelt before the figure, mumbling a prayer. He then crawled to the feet and kissed them. As he was leaving, I pointed to the image and asked him what it was. He said, "The Lord." I pointed up and said, "The Lord has arisen," but he pointed to the wretched caricature and shook his head. That was the only Lord he knew.

There are more than three hundred churches in the City of Mexico. They are filled with such images, though this I have described was one of the worst.

A curious fact is the various features they give to the Savior and the Virgin. A black woolly-headed Mary drew the prayers and pennies of the negroes, while a common sight is an Indian Savior hanging to a cross. All street demonstrations by the church have been forbidden by the Liberal government. But in defiance of this decree much church ceremony is still seen. When the sacrament is carried through the street to a dying person, hundreds kneel with uncovered heads until the carriage is out of sight. The men remove their hats while the morning, noon, and evening bells are ringing, and when they pass a priest or a church.

In some streets the churches and priests are so numerous that the devotees are obliged to walk hat in hand from one end to the other. A few years ago the church owned Mexico. Now the positions are reversed. Liberalism is triumphant. And though Liberalism as opposed to Catholicism generally means atheism, it is a significant fact that the government owns the flag-staff on the great cathedral, and on each yearly anniversary of the day when the country was freed from the shackles of the church, the flag of the republic floats over this great heart of Romanism.

One more great change must come—nay, is even now taking place. It is easier to fill an empty temple than to clean an old one. The enlightened, ruling class of Mexicans are atheists it is true, but the leaven of Protestantism is in their midst. The future of Liberalism in Mexico depends upon the growth of Protestantism.

ALONG THE FLORIDA COAST.

DR. J. B. HOLDER.

A coastwise southerly voyage is particularly enjoyable, given fair average weather. There are those even who enjoy a spice of billowy sea, more or less active. Whatever an ocean voyage may be, there is nothing monotonous in one coastwise.

The possibilities of the Gulf Stream are many, and the average happenings full of interest. Doubtless one or more of the great fin-back whales have been sighted ere we reach the "Stream", for they disport themselves well inshore in moderate weather. What a grand sight! The fin-back is long and slender, and his evolutions most graceful. He does not leap out of water to tumble, like the sturgeon, ingloriously into the sea again, but he rises like an arrow, describing a graceful curve, his beautiful crescent-shaped tail exhibiting *en silhouette* for an instant against the sky, ere it disappears.

Great as these creatures are, when seen in the sea they impress one as far from huge or clumsy. The surroundings are fitting, and ample for their freest movements. It is a pretty sight, should you be so fortunate as to see the calf or the calves of a whale, swimming never so rapidly, or leisurely paddling on the surface, the little ones clinging to the mother, nursing as they go.

There are several natural objects one or more of which the voyager along the coast is pretty sure to see, provided the ocean surface be tolerably smooth. The proverbial condition of ignorance displayed by sea-faring people concerning these various marine creatures, is not reassuring to the passenger. And it chances therefore that, although the objects are seen, little or no knowledge is carried away concerning them.

Let us on this voyage demand some information. It is now not uncommon to see the black head of an enormous turtle peering from the surface. To judge by the history of this creature, it would seem that it was formerly extremely rare. It is the leather turtle, the largest known to science—often found measuring eight feet in length. We recall the time when but one specimen was known in this country, and that is as large as any subsequently captured, measuring something over eight feet. It occupies one entire case in the Boston Museum. This creature was caught in Boston harbor many years since, and a large price was paid for it.

The leather turtle is essentially an ocean reptile. Belon, the ancient zoölogist, described and figured it, from a specimen taken in the Mediterranean Sea. This history was all that was known of it here, until the Boston specimen was captured. No other was known until some years later, when the writer found a small specimen, measuring about three feet in length. It had been cast ashore on Nahant Beach; a gun-shot hole in its neck indicating its fate. Within the last twenty years past, this kind of turtle has frequently been found. The United States Fishery Commission has secured some large examples. A very fine specimen was taken this summer on Cape Cod.

Knowledge of such creatures finds its way very slowly into the minds of the average citizen. Notwithstanding this creature has become tolerably familiar, each specimen that chances to be taken, or to "go ashore" on our beaches, is heralded as something wholly new and strange. Let us know what little there is to know of him. He has a black shell, which is strongly ribbed longitudinally. His home is in the sea,

though the female, like all sea turtles, resorts to some shore, usually remote islands, to deposit her eggs.

Perhaps the most singular, puzzling object you are liable to meet with on this voyage, or indeed, in warmer weather, quite near the coast, is the so-called sun-fish, or mola—getting its first name from its general circular form, and the latter, a Spanish derivation, from its resemblance to a millstone. It must be said that the latter is not far astray.

Probably most people would describe it as a great thin fish so far truncated that nothing is left but its head The creature is sluggish, and almost always is seen flapping on its side, quite on the surface. It manages to get deeper, however, as you approach. This fish sometimes attains five hundred pounds weight, and measures five feet in length; having nearly the same depth, and a maximum thickness of but few inches. It has a tall shark-like dorsal fin, and an anal of similar size and shape. It is classed, though so large, with the file fishes, etc., its family being *Orthagoriscidæ*.

Many a voyager has seen this creature flapping the sea with his great fins. It is one of the few instances in nature that *seems* to be a failure. So far as the apparent inability to swim properly is concerned—I have never met with anyone who has seen this fish swim upright, vertically, as he is evidently intended to. He is usually seen as described, looking as if he could not manage it, and when approached, sinking broadside or on beam-ends, instead of plying his fins. *Orthagoriscus mola* is the technical name.

Along the borders of the Gulf Stream, near Hatteras, as we pass southward we are near the ground once notable for the file fish, family *Balistidæ*.

The short life-history of this as a food fish is remarkable. In 1879 one of the steamers of the United States Fishery Commission, while dredging along the borders of the Gulf Stream in this region, brought up a fish whose shape and colors were quite new and strange.

It was demonstrated by the United States Fishery Commission that this fish was abundant in the deep waters off the southern New England coast. It is one of the most brilliantly colored fishes known outside of the tropical waters. It has a soft dorsal fin, like that seen on the salmon. Its weight varies from ten to fifty pounds, though some are found of much greater weight. The first specimens were found by Capt. Kirby of Gloucester, Massachusetts. The flesh was found to be excellent in flavor and delicacy, and it was judged to be something between that of cod and striped bass. This fish was regarded so valuable for food fish that much was expected of it. Most singularly, however, this fish suddenly disappeared, or the entire race seemed to die from some cause acting upon the race. Myriads of them were seen floating upon the surface of the sea. And it is thought that some submarine disturbance was the cause.

The reader may have an inclination to assume that we are serving up an exceptional instance, or an unusual sequence of strange objects, but they who go down to the sea in ships, and have an eye to windward, leeward, and athwart the deck, as good observers do, will assuredly see these same things or more wonderful.

It was in the last days of July, and a most surprisingly smooth sea was with us the entire voyage of four days; along the borders of the Gulf Stream, shoreward, we saw the huge creatures which we have just described ; and we saw also several of those great creatures called sting rays, or devil-fish.

They are fabulously large. Those which we saw appeared to be about ten feet across, but they are found, according to Dr. Storer, the late eminent ichthyologist, measuring seventeen feet across the back. They are shaped something like a flounder, and have the mouth on the under surface.

The sea being perfectly smooth, every movement of these vast masses was visible, as they were feeding on the surface. The forward movements were like those of a great moth or butterfly, or a great big-winged bird which slowly flaps along. Presently a great white wing-like mass juts completely out of water; it is the side of one of the rays. He had turned suddenly, and to do so, one wing drops like a flange of a propellor, while its mate opposite, protrudes high in the air, its under surface of shining white, in strong contrast to the back which is black.

Here were these great creatures maneuvering amongst a vast shoal of small fishes, evidently seizing and eating, as rapidly as might be, with their comparatively small mouths.

The movement of several of such vast forms in a densely packed shoal of fishes, caused constant panic, and hundreds were rising and falling back again among their fellows. Overhead the laughing gulls and pelicans were soaring in active preparation for the feast. A pelican dives among the hosts and secures a pouch full, more or less. So nearly universal is the circumstance that a pelican is accompanied by a laughing gull, it is seldom on such occasions especially, that the latter is absent. The gull earns not his own subsistence.

The pelican once successful, rises heavily, or rests upon the surface to adjust his game. He is clumsy. He must toss his huge pouch in air to shake down his prey. The ample space upon his back has offered a tempting rest for the gull, (we have seen the latter even resting on his great head) who reaches deliberately, and snatches away a portion of the catch. The gull now rises exultantly, crying out his ha, ha, and waits deliberately for another haul of the pelican. So stupid or good-natured is the pelican that he never seems to object, while the lazy laughing gull lives continuously by stealing from his stock. This makes the pelican always late home. He seldom gets through work before night, and he labors hard to procure enough for his brood. We have seen this white resident at the Tortugas ; we were gratified by having a number of pelicans build their nests in some small trees near our dwelling ; and during several years' residence came to know them intimately.

Invariably the gulls stole so heavily from poor pelican that he was obliged to fish nearly all day long, and flap heavily home after dark. The sudden shutting down of twilight, peculiar to the tropics, often found poor pelican left out. It was a strange sight, those great straggling nests of twigs and boughs, on the slender limbs of the mangrove. When the mother pelican alighted, down went the cradle, pelican, babies, and all, but up they came, though, with a rebound.

These nests were always over the sea, as the mangroves naturally grow in such localities, and the babies would safely come up, being sea-birds, were they spilled out, as they most certainly seemed in danger of at times.

But we have gone ashore prematurely. Another element came in to add to the scene. The exulting ha, ha, of the laughing gull, was not always continued uninterrupted. The frigate bird, or war hawk, *Tachypetes aquilus*, is as good a thief as another. Does the gull filch a bit from the pelican, the war hawk spies directly, and far away though he be, high in air, the gull is instantly alarmed; he shoots here and there, rises in air, but the hawk is now over him. Always trusting to the instinctive fear of the gull, he makes no demonstration, but steadily follows, keeping directly overhead, or under. It is a matter of time ; terror-stricken

the gull drops his game, and, arrow-like in celerity, the hawk seizes it ere it reaches the sea.

Thus one creature depends upon another for subsistence. The voracious sword-fish rushes into a shoal of small fry and flying-fishes, when they shoot out of water in numbers, to be caught up by the hovering birds.

A sure sign that the vessel has entered warmer waters is the appearance on all hands of the pretty and most gorgeous *Physalia*, or Portuguese man-of-war. Myriads of these beautiful creatures are often seen, like a vast fleet of fairy vessels. A general idea of these creatures may safely be formed by calling them a species of jelly-fish or sea jelly. We are all familiar with the sea jellies of our northern waters, which often float in and cover the beaches with their dead or dying discs; drying away quickly in the sun to nearly nothing; yet lately beautiful in color and form, with delicate transparent brown bodies bedecked with pink rosettes. Yes, these little ships, truly "painted ships upon a painted ocean," are sea jellies; but they have the beautiful float or bladder, an extra portion which constitutes all its beauty, supported on the jelly mass, which trails downward in numerous oar-like tentacles.

This creature may, perhaps, be more properly likened to an ancient galley, with banks of oars trailing beneath its decks. It has been likened to a vessel, on account of this purple and iridescent crest which rises from the floating bladder; and its likeness to an ancient ship is somewhat suggestive. This creature has been confounded even by writers, with the nautilus. It is of a much lower department in the animal kingdom.

Many years since, when these creatures were not so familiar to naturalists as they are to-day, we chanced to discover an interesting commensal accompaniment to this creature. You may take it out of water many times, and not observe any thing near it, but cautiously introduce a large bucket under one, and remove the water with it. You will, in many instances, find that several little fishes are under the long tentacles. These are not over three inches in length, often smaller, and so alike in color with the *Physalia*, they look as if made for the place. Indeed, they are, seemingly. This is only one instance of many where a creature is dependent on the good officers of another for protection.

It is well known that the sea jellies, are provided with a peculiar system of barbed weapons, nearly invisible to the eye, yet giving them the more or less pungent quality known to them. The weapons of the *Physalia* are more potent, and are deadly to fishes of considerable size. While they are sufficient to produce serious effects on the human body.

We have seen a sizable fish approach and attempt to nibble one of the soft tentacles of a *Physalia*, when instantly the fish turned over, killed by the shock. The numerous coiling, snake-like tentacles then surely haul upward the prey to the several greedy mouths above, under the float.

Now, with what wonder do we observe the little blue fishes play within the dread tentacles. Another fish would inevitably be killed. Why not our little blues? This is one of the secrets of nature. The little fishes are seemingly protected. They are so near the color of the tentacles, an indigo blue, that they appear as if they were a natural accompaniment of the *Physalia*. They probably get a sufficient supply of food from the latter's prey. Since the event of our discovering this interesting instance of commensal association of a vertebrate with one of the lowest of the animal kingdom, many other examples have been brought to light.

At the present moment we are passing along the western shore of Florida, and so near the beach, one might, easily, with a good rifle, shoot the rabbits and deer which are frequently seen here. The reason of "hugging the shore" so closely, is that the Gulf Stream runs close in, and has a velocity of several miles per hour, northward, thus, vessels gain by keeping out of it. While on the northward bound course, they take the advantage which it gives by sailing in its midst. This trailing so closely to the shore long ago resulted in a great benefit to sailing vessels in one respect. In time of calm, and while a boat's crew were sculling along the shore below Cape Florida, they came upon a place in the shallow water where fresh water was bubbling up, through the salt sea. Since then it has been customary for vessels to renew their "breakers" or barrels with fresh water. This they accomplished by placing a headless barrel in the shallow water, closely fitting it to the bottom, and then bailing it out. Fresh water soon came in liberal quantities, and good quality. This place is sure to be pointed out on passing steamers as one of the curiosities of the region, though its name is absurdly inappropriate: the "Punch-Bowl."

As we pass Cape Florida Light, once a scene of the worst Indian atrocities, we are reminded that here, and on Virginia Key, which is the first and most eastern of the keys or islands on the Florida Reef, was found but few years since a species of crocodile; and since then several have been found of the largest kind. This was news to naturalists, as the alligator was supposed to be the only example of the group known to our country. The Seminole Indians of Florida seem to be familiar with these crocodiles, calling them, very wisely, thin-nosed alligators; this indicating their perception of the principal character which distinguishes them from the alligators.

We are now within sight of old Fort Dallas, one of the relics of the last Indian war in Florida. It is beautifully situated at the mouth of the Miami river, which flows out from the everglades. During late years the land about here, which is the extreme southern end of Florida, has been purchased in small lots, and considerable settlements have been made. Mr. Lum of Red Bank, New Jersey, went there several years since, and purchased a tract near Fort Dallas. It had been found that the cocoa-nut palm would thrive and yield profitably, and Mr. Lum, with his son, planted a number of thousands, which, he has lately informed me, are doing well, and promise a good return. It requires the growth of seven years from the nut, before this tree is in bearing condition, consequently it is a matter of time and patience with the planters. Meantime there are two crops which occupy the sojourners *ad interim*. The pine-apple has proved a bonanza to them. We chanced to see the first pine-apple plantation which was ventured upon the Florida Reef.

The course of the steamer after rounding Cape Florida takes one close alongside the Florida Reef. We notice it first in increased clearness of the sea. The white coral bottom is revealed through the beautiful bluish ocean water. The delightful sensations incident to the advent to the tropics, are apparent. The line of Cancer is reached, and we run very near it westward.

As we pass along the coral keys, or islets, the clear waters of the reef reveal the beautiful coral forms, and the sea feathers, sea fans, and many kindred kinds. The gorgeous angel fishes, and several equally brilliant larger fishes, including the dolphin, are seen darting in and out of the flowing leaflets, and the curious egg-shaped boats of the "spongers" are seen here and there in the outlets and creeks.

HOW TO LIVE.

EDWARD EVERETT HALE.

HOW TO DEAL WITH ONE'S CHILDREN.

In Miss Edgeworth's sequel to "Frank," there is a conversation between Frank's father, who had no other name, and the Engineer, who had no name, on the education of children. The conversation did not belong in the story, but Miss Edgeworth forced it in because it contains the essence of her theory and her father's, and she wanted to force it upon people who would not read their longer treatise on that subject. That treatise itself, now gone, really forgotten, is commended to conscientious and affectionate parents.

In this talk between Frank's father and the Engineer, Frank's father says that he has himself taught Frank to ride on horseback, because he wanted the boy in after life, always to associate the pleasure he took in riding, with the memory of his father. He confesses that he is jealous of any one else, who should come between him and his son in that business.

Frank's father has a right to this gratitude of his son and the pleasure connected with it, because he is his father. And a very important principle of education is involved in the declaration.

Make your children your companions, as far as you possibly can. This is the practical statement which is involved in the principle.

There is a certain danger, not much, but enough to be considered, that the Juggernaut tyranny of a great public school system may do something to crush out that natural tenderness which ought to bind children and parents, parents and children, in one. Thus, of necessity the school hours must be fixed, and they are unchangeable. All home hours have to conform to them. In bad schools there will be evening lessons sent home. Of course these must be learned, and so much time is thus taken from home intimacies, duties, and pleasures. Because this is all so, it is all the more necessary in America that fathers and mothers shall watchfully keep close to their children, and keep the children close to them, by any device in amusement, in study, in daily work. There is no fear but the children will gladly hold on upon their share in this companionship.

Suppose a growing family, of half a dozen children of all ages, from fourteen down. Suppose such a family in a city of the comfortable size, not too large or too small, such a city as is Springfield, or Akron, or Syracuse, or Kansas. Evening comes. Supper is over and there are two hours before the bed-time of the older children. What are these boys and girls to do, and what is their mother to do?

It is perfectly in her power to go Monday evening to a progressive euchre party, on Tuesday evening to a mother's meeting, on Wednesday evening to Mrs. Jones' party, on Thursday evening to the regular prayer-meeting, on Friday evening to the theater, and on Saturday evening she may, with her husband, return the Fillebrown's call.

On his part, her husband may go out to "the store" every evening but Saturday. With such interruptions as are made necessary by the lodges, the "committee," the prayer-meeting, the caucus, and the visits of his customers from the country.

If, with or without consideration, father and mother do take these courses, whoever leaves the children last will say, "Now be good children, be careful with the lamp, be sure you do not sit up too late, and Jane, I wish you would give the baby her drops when you go to bed."

The children will then follow the example of their parents as well as they can. Tom and Dick will roam the streets with the other boys who have like liberty, and make such acquaintanceship as Satan or any other power may suggest, in the stables, saloons, and mock auction rooms. Jane and Olivia will do likewise, as far as they dare and can,—they will perhaps go across and sit on the door steps with Fanny and Matilda, till the time of their parents' return approaches.

After ten years the general verdict of the neighbors will be surprise, that considering Mr. and Mrs. Jones were such truly excellent people, their children should have "turned out" so wretchedly.

On the other hand, it is quite possible for Mrs. Jones to look this matter of companionship with her children fairly in the face, once for all. She may say, "these children are bone of my bone and blood of my blood. Their life is my life. They will, probably, be more like me in tastes, in dispositions, and in faculties, than any other people in the world. I choose them for my life-companions. For better for worse, for richer for poorer, in joy or in sorrow, they and I will rough along together."

This resolution will, at first, cost Mrs. Jones some serious self-denials. If she is living in the town where she grew up, it will separate her widely from "the other girls." That separation, however, really came the day she was married, and she promised then, with a good deal of solemnity, that she would meet it and all that it involved

Because she makes this resolution, to take the case named in our concrete instance, she does not go to the progressive euchre party Monday evening. She stays at home, and the children are with her. They are with her, of course. They always have spent their evenings with her. They hate to go anywhere else, or to be any where else. In a household to which my memory runs back, as I write, she places a central lamp on a large table, as soon as supper is done; the children, perfectly by system, draw up their chairs to the table, and she provides for them her stores of entertainment. Dominoes, checkers, chess-men, backgammon boards, games of this and that, such as have accumulated for years. Each child has a pencil ready cut, and a sheet of paper to draw upon, as certainly as he would have had bread or milk at supper. In these days it is easy to add a box of water-colors or of colored crayons. For the little children she has all the simpler arrangements of the kindergarten: the clay for modeling, the cut paper for weaving. It is no burden to her, but a pleasure to oversee the evening's entertainment, varied a hundred fold, which takes care of itself where such provision is made for it; she becomes the right hand of each boy and girl, more than guide, more than philosopher, more than friend. She has her reward. For those children grow into a passionate love for her. They know how young she is, and how perfect is her sympathy with them. And every word she has to speak to them of warning, of advice, of request or command is sure to tell.

She has made herself their companion, and has made them hers.

As we live, it is not always so easy for a father to do exactly the same thing in the same way.

But let him remember, as this mother did, that the children are bone of his bone, blood of his blood, that his life is theirs. Let him be on the look-out for chances to have them with him, and to interest them in his affairs.

James Mill, the author of the "History of India" and first editor of the *Westminster Review*, was a man of letters. Literature, or the writing of books, was his business.

If there is any business which is supposed to separate a father from his children it is this. How often is it said to a boy, "Don't disturb your father because he is writing."

But Mill never said so. He sat at one end of the study table, his boy sat at the other. The boy studied his Latin, and if he did not know how to read a sentence, he asked his father, and his father told him. On the other hand, if the father had a list of generals or of ships to copy, I do not doubt he pushed it across the table, and told the boy to copy it. That is the way in which John Stuart Mill was trained; and, in all the machinery of our generation, high schools, intermediate schools, preparatory, second primary, or third secondary schools, I have not observed any that has improved on that specimen of training for literature and literary work.

The great advantage of farm work as a school for the training of men, is that it admits so many chances for the father and his sons to be together. It is "we" who do it, the boy rides the horse while the father holds the plow, or the little boy drops the potatoes while a bigger boy and the father cover them and make the hills.

The Chautauqua system shows no finer result than when a father comes with his daughter and his son, for the diplomas which they have won together, by reading in the same course for four years.

Where there's a will there's a way. And the father who will remember that he has a better right to his son, and a nearer, than any school board or school-master, will be on the lookout for good occasions for companionship.

"George, I am going out with Mr. Tapeandrod to measure the lines where they are going to make the new reservoir. You can come with us."

If the boy belongs to a high pressure regulation school of the seventh power, he will say, "Father, I am very sorry, but we have to present to-morrow a map of Italy drawn from memory and colored, with all the names we can remember written in."

It is precisely at this point that the intelligent father knows how to have his own way, without appearing to interfere with the discipline of the school. He does not give way, however. He takes the boy with him, and the boy enters into his life. Because the boy is his boy, the boy goes with him about his business. If it is necessary, they both get out of bed an hour earlier than usual the next morning, and the father shows the boy how to stretch the paper for the map, how to mix his tints, how to measure his parallels and meridians. The principle again is companionship, just as far as companionship is possible. He enters into his boy's pursuits, and his boy enters into his.

All this does not mean that the business of education, or any business of the house is carried on by what we call in New England, a caucus. The regulation of education and the regulation of all the affairs of the family are to be made by the father and the mother. If they are sensible people, they will explain, particularly to the elder children, their reasons for making this, or that decision. But they do this that it may be the easier for the children to adapt themselves to the decision, and they must not give the lower house any reason to think that it has a veto on the upper house; or that if the two houses disagree, the arrangement proposed will not go into effect. It is hardly necessary to discuss here the reasons for this statement. It is enough to say that in action, no executive office should ever be entrusted to a large board. The executive office must be in the hands of one person. And, in this very case, the husband would not consult with the wife nor the wife with the husband, but that in simple truth, and not in metaphor, the husband and wife are really one.

But if they are to explain the reasons to the children, there must be some reasons to explain. They must not be running for luck. They must, in the essential things, as we have seen in other papers of this series, have certain determinations. It does not follow, even, that these determinations are the same for one child as for another, but we must know what we are about.

Here is Harry, for instance, who evidently has a facility for language, but is slow in mathematics and quite indifferent to outward nature. Most school-masters will want to let that boy run where he runs easily, and to "ease off" as far as they can on the natural history and on his mathematical studies. But other teachers, especially those of the kind who like to make school disagreeable, will want to press him on the lines where he works with difficulty, to develop his dormant activities on those sides, and, in a word, to do what they can to restore the balance which nature has left unadjusted.

Now there is a great deal to be said on each side, and you must make your decision for each separate child whom God gives you. But none the less must you make it. When you have made it, you must hold to it, long enough to give to it a reasonable trial. "Go not from house to house." Spare the boy or girl in after life, the miserable reflection that he or she was made the victim of every system of education which happened to come up in the period of childhood and youth.

There will be found scattered through Mrs. Butler's (Mrs. Frances Anne Kemble Butler) "Reminiscences," a good many suggestions as to education, which are worth note. She says somewhere, rather bitterly, that women are, in general, of nature, only too well disposed to turn from topic to topic, from one occupation to another, and in general to look superficially on that which they study. She says that in the arrangement of women's schools this tendency has been acknowledged and yielded to, so that a girl is encouraged, or directed, to study a little French, a little Italian, a little Latin, a little grammar, a little arithmetic, a little music, a little drawing, a little painting, —in short, a little of almost everything which can be named. On the other hand, she says, the average boy who receives the best education, is kept sternly at his Latin, Greek, and mathematics, and thus gains, at the very outset, the habit of concentration which in itself gives him strength for whatever he has to do in life. This remark, which was made forty years ago, could not be so broadly made now, as it was then. For in the better schools for women, there is much more concentration than there was in the old-fashioned "ladies' seminary"; and the more important schools for boys are, on the other hand, yielding on this very point, and give the boys a choice in a much wider range than the three studies which she indicates. But the remark is worth citing, because it probably indicates the side on which danger lies.

We should never forget that we send these children to school, not so much to learn facts as to learn how to learn

them. Of course, there are some central facts which they must learn: as that three times three is nine, and that a b spells *ab*. But the principal business of education is to start boy and girl with aptitude, desire, and strength to follow, each in the right way, the line of life which he or she may have to follow. It is somewhat risky to give them "eleven weeks of botany," "eleven weeks of entomology," "eleven weeks of geology," "Spanish in six lessons," "Italian in six lessons," "French in six lessons," if we mean that they shall gain, in young life, the persistent power of enduring to the end to which only does victory come.

Fathers and mothers must remember what Mr. Hamerton says vulgar parents are apt to forget. It is this. That a child may be born to you of tastes, faculties, and consequent predispositions entirely unlike your own. So far as these matters depend on descent, it frequently happens that a child inherits qualities from a grandfather or great grandfather which do not appear in the generations between. Now if this happens, your problem is entirely different from what it is, with a mother who has a daughter just like herself, or when a father has a son who shares all his tastes, and habits, and falls directly into his concerns. One often sees parents who are puzzled in the problem thus presented to them, and quite at loss how to meet it. But as soon as you have found out that there is such a difference in "make-up," as has been described, the problem is much easier. "Put yourself in his place" is the rule which applies here, as it applies in every other point in Christian ethics. The whole matter is very well discussed in Mr. Hamerton's essay on "Fathers and Sons,"—an essay which closes with these words:

"The best satisfaction for a father is to deserve and receive loyal and unfailing respect from his son.

"No, this is not quite the best, not quite the supreme satisfaction of paternity. Shall I reveal the secret that lies in silence at the very bottom of the hearts of all worthy and honorable fathers? Their profoundest happiness is to be able themselves to respect their sons."

Are we not, indeed, always wishing to enlarge the range of home-life and to lift its plane so that the prospect may be more extensive? We are glad to have a new picture on the walls, a new book on the shelves, and, in any way to get more extensive outlook upon this world and all other worlds. Now what addition to the life of a home can be equal to this of a new person gaining in resources every day, who has faculties of observation and, indeed, methods of life which were wholly unknown to us before? Here is your daughter, who has brought into the house from the Virginia creeper, two or three great beasts which you hate to look upon. They are dirty, you think them ugly and to you they are in every sense detestable. She pets them as you would pet canary birds. Now there is a very great temptation to you to say that she shall not have these filthy things in her room. You do not like them, therefore she shall not like them. That is the very simple logic. But really this is simply the logic of that father whose two ears vibrate to two different key-notes, who says, therefore, that all music is detestable, and his children shall not learn to sing or play the violin or the piano.

If the children have an ear for music, if, as has been said in another paper of this series, they are fond of it, so as to be willing and strong to conquer the difficulties and do the work required, you must encourage them to do so, whether your ear is accurate or no. And in exactly the same way and for exactly the same reason you must tolerate Ellen's tastes, with her caterpillars, her butterflies, her eggs, her cocoons and all the rest of it. You must loyally put yourself in her place, as far as you can, help her as far as you can, and encourage her. Let her have all the joy of sympathy and never make her think she is a rebel. You can help her in a thousand ways. And on her part, she must learn to persevere to the end, to hold on to that which she begins upon, to do neatly, thoroughly, and steadily what she does at all. She is to feel also, that these are no matters of hap-hazard, to be begun to-day, and forgotten to-morrow. Remind yourself, also, every day that the boy has an individual existence of his own. Do not group him with "the children," or "the boys," but grant to him as a separate being, what that being needs. This remark includes a difficult duty. It is that father and mother recollect how they felt themselves at ten years or at twelve years, —and overcome the very natural habit of making the children younger or less capable than they really are.

There is a capital little treatise by Mr. Jacob Abbott, "Gentle measures in the management of the young," which contains a great deal of practical suggestion, which inexperienced parents will do well to consider, digest, and remember. Much of the same philosophy, all based on a simple and intelligent religion, will be found in the Franconia books and the Rollo books. It is the fashion to laugh at these books now, but it will be long before Young America has better reading. It is in one of the Franconia books that the rule is laid down for family education, which really applies in all legislation and in all life:—"If you grant, grant cheerfully,—if you refuse, refuse finally." This means that your children are to understand that you have not given your directions thoughtlessly, and that importunity or what they would call "teasing," is not going to change the decision. As you watch the children on a hotel piazza in summer, in their intercourse with their mothers, you can tell in a minute whether the mothers live by this rule or do not. One set of children will expect to carry their points by making fuss enough about them, while the other set will accept the inevitable at once, and make their arrangements accordingly. This latter set, it may be said in passing, are not only the better children of the two, but they are in fact, the happier; they get a great deal more out of life.

It is to be observed, however, that the two parts of Mr. Abbott's rule belong together. If you mean to refuse finally in this case, you ought to grant liberally in that. And this is from no wretched plan of barter. It is not that you say, "I bought the right to forbid your swimming to-day by letting you go fishing yesterday." That is all very wretched and mean. But you do want to feel yourself, and you want your children to feel, that on the whole you have great confidence in them. To speak very seriously, you know they are children of God and that you can trust them very largely. If they feel that,—because you have granted liberally—they will also feel, when the refusal comes, that you have reason for the refusal, and that they must assent to it. It is very important that they should understand that it is not a matter of whim.

In all this serious discussion of principles it must be remembered that every hour is going to bring up what seem to be abnormal or exceptional cases. The tide does not rise on the beach without constant backward flow of separate waves and storms of spray—drops blown right and left in every conceivable direction. Mr. Emerson's great law, therefore, should never be forgotten. It is the same law which many a nice old grandmother has laid down for many a care-worn young mother, terrified by the infinite requisitions

of her first baby. "Dear child," the old lady says and says very wisely, "you must get along as well as you can." Mr. Emerson uses almost the same words in one of his rather celebrated aphorisms. The authority for the statement is easily found and remembered. For if you really trust the Holy Spirit, He will teach you in that same hour what you shall say and what you shall speak.

The present help of a good God has everything to do with the education of children, if we loyally trust to it.

Dr. Francis Wayland had in his study, on the morning of a college examination day, an anxious mother who had brought her son from home to be entered at Brown University. She was "weeping and wailing" about the probable dangers to which she must leave him in his college life, when Dr. Wayland, who was the president of the college, took his turn in the conversation.

"Madam," said he, "do you suppose God Almighty has forgotten your boy?"

She said with some sobs that she did not.

"Nor do I," said he. "Thus far He has educated His boy with you, and now He proposes to educate him without you."

Any serious man or woman who will recollect how many valuable lessons he has learned and how many permanent blessings he has received for which he cannot find that any human forethought provided, will be ready to accept Dr. Wayland's lesson.

We will lay down such general principles as we can: from hour to hour we will keep our eyes open to do as well as we can.

And at the same time we will acknowledge that a good God is caring for us and our children, and will order for them some things which we could not devise.

THE MASTERS OF RUSSIAN LITERATURE.

Translation is the scholar's fairy wand. By it the sealed lids of a foreign literature open; the unknown tongue becomes our own; Homer, Virgil, Goethe, Racine, Cervantes, Shakspere, are a common heritage. Its latest benefaction has been to place at our disposal the works of the Masters of Russian Literature.* The writers included under this honorable title are Nikolaï Gogol (1809–1852), Ivan Turgénief (1818–1883), and Count Lyof Tolstoï (1828——); to these should be added a fourth, Feodor Dostoyevsky (1821–1881).

These men were contemporaries of the birth of the liberal spirit in the Russian mind. In their youth, Russia began to give signs of awakening from her long and inglorious sleep. The restlessness of the mass was fire in the veins of the few; sensitiveness to the miseries of the people, and hope in the possibilities of liberalism, marked their words and works. This influence shows itself in the writings of all their leaders in literature. Particularly strong is it in the realistic novelists known as the "Masters of Russian Literature."

The people, the life, the government, are the subjects with which these writers deal in their novels. Though placed among the realists, their object can in no case be called mere portrayal or analysis. Our own greatest representative of the realistic school, Mr. Howells, says of them, "Perhaps *humanist* would be the best phrase in which to clothe the idea of their literary office." Beyond fidelty to his art or desire of fame, each of them placed Russia, her people, and her progress. Their devotion to the notion of progress brought them honor and love, but it cost them dear. The Emperor Alexander declared that Turgénief's "Memoirs of a Sportsman" first turned his mind to the question of liberation, but it made the serf-owning class of Russia the author's enemy; and certain utterances later caused him imprisonment and then banishment to a distant estate. Dostoyevsky when he died was "followed to the grave by such a mighty concourse of all manner of people as never assembled at the funeral of any author before"; but it was only after the freedom of his utterances had been paid for by six years at hard labor in Siberia.

Some idea of the power of these masters may be obtained by a few quotations from their works, and such quotations will, we believe, show the justice of placing them in the high position accorded them by their own countrymen, as well as by the critics of Europe and America. As an example of faithful portrayal as well as powerful sarcasm, take the following from Gogol's *Revizor* (the Inspector-General), a satire exposing the vices of the Russian administration. News has been received in a small city of the approaching visit of the Inspector. The officials are at the mayor's making ready for him.

"'What can you expect?' says the mayor with a sigh. 'It is a judgment from God! Hitherto it has fallen on other cities. It is our turn now.' Like a prudent man, he has taken his measures, and he advises the other employers to do likewise. 'You,' he says to the director of the hospital, 'you will do well to take pains that everything is on a good footing. . . Let 'em put on white cotton night-caps, and don't allow the patients to look like chimney-sweeps as they usually do. And you,' he says to the doctor, 'you must look out that each bed has its label in Latin or some other language, . . and it would be better not to have so many patients, for they won't fail to throw the blame on the administration.'

"'You,' he says to the justice of the peace, 'pay attention to your tribunal; your boy brings his geese into your great hall, and they come quacking between the legs of the plaintiffs. . . And your audience-chamber looks like—the Devil knows what! And you,' he says to the principal of the college, 'you watch over your professors. Their actions are suspicious; there is one who so far forgets himself in his chair as to put his fingers behind his cravat, and to scratch his chin. It is not necessary to teach the young habits of independence.' The postmaster remains. The mayor urges him to open a few letters, so as to assure himself that there are no denunciations. 'You need not teach me my trade,' replies the postmaster: 'I have nothing else to do.' In fact it is his daily amusement; he could not do without his reading." And so the satire goes on ridiculing in this merciless way the looseness of the government. It is in the course of these interesting preparations for the *revizor's* visit that the mayor lets fall a sentence to one of his subordinates, which has become one of the Russian

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*The Great Masters of Russian Literature. By Ernest Dupuy. New York: Thomas Y. Crowell & Co.

Anna Karénina. By Count Lyof Tolstoï. New York: Williams L. Gottsberger.

Childhood, Boyhood, Youth. By Count Lyof N. Tolstoï. New York: Thomas Y. Crowell & Co.

St. John's Eve and Other Stories. By Nikolaï Gogol. New York: Thomas Y. Crowell & Co.

Taras Bulba. By Nikolaï Gogol. New York: Thomas Y. Crowell & Co.

proverbs, "You steal too much for your rank."

From Dostoyevsky's "Recollections of a Dead-House", read this abridged description of the *banya*, or bath to which prisoners were taken. Of this, Turgénief, not an admirer of Dostoyevsky, said, "The picture of the *banya* is really worthy of Dante." The influence of such descriptions upon the people, may be imagined.

"In the whole city there were only two public baths. The first was designed for high-toned people. The other *banya* was pre-eminently common, old, filthy, small; and to this our prisoners were going. A whole squad of soldiers escorted us with loaded guns. . . .

"Petrof helped me to undress myself, because, as I was not used to it, it took me long; and the dressing-room was cold, almost as cold as the street. By the way, it is very hard for a prisoner to undress if he has not had some practice. In the first place it is necessary to know how to unfasten quickly the shin-protectors. These are made of leather about seven inches long, and they are fastened to the underclothes directly under the iron anklet which encircles the leg. A pair of shin-protectors is worth not less than sixty *kopeks;* but every prisoner gets himself a pair, at his own expense of course, because without them it is impossible to walk. The iron ring does not encircle the leg tightly, and it is easy to thrust a finger between the ring and the leg. Thus the iron strikes the leg, chafes it; and the prisoner without shin-protectors would in a single day have bad wounds. But to take off the shin-protector is not the hardest thing of all. It is much harder to get off the clothes when one wears the rings. Suppose you are taking off the drawers from the left leg, it is necessary first to let the garment slip through between the leg and the ring. Afterwards you have to put it on the same way. . . .

"When we opened the door of the *banya*, I thought we were going into Gehenna. Imagine a room about twelve feet long, and as wide, stuffed with probably a hundred men; the steam blinding our eyes, the sweat, the filth, such a crowd there was no room to get a leg in! With the greatest difficulty, we squeezed ourselves through to the benches over the heads of those who were sitting on the floor. It was necessary to buy a place and Petrof immediately entered into transactions with a prisoner near a window. . . . The man threw himself under a bench, where it was dark, filthy, and where the slimy dampness was almost half a finger in thickness. But the places under the benches were also taken. On the whole floor there was not a free place as large as one's hand, where the prisoners would not be sitting doubled up, washing themselves in their pails. Others stood upright among these, and, holding their pails in their hands, washed themselves as best they could. The dirty water ran down directly on the shaven heads of those who sat beneath them.

"Fifty brooms or so on the platform were rising and falling in concert. Every instant steam was let in It was not merely steam, it was hell let loose. It was all one uproar and hullaballoo, with the rattling of a hundred chains dragging over the floor. Some trying to pass, entangled themselves with the chains of others, and they themselves bumped against the heads of those sitting below, and they tumbled over, and scolded, and dragged into the quarrel those whom they hit. The filth was streaming on every side. Shrieks and cries were heard. . . . Now and then, at the window or half-opened door, a soldier with mustachioed face would show himself, gun in hand, ready to quell the disorder. The shaven heads, and red, parboiled bodies of the prisoners seemed uglier than ever. On their shoulders clearly appeared, oftentimes, the welts caused by the strokes and lashes received in days gone by, so that now all these backs seemed to be freshly wounded. Horrid welts! A chill went through my skin at seeing them. . . .

"The thought entered my mind that if we were ever to be all in hell, then it would look very much like this place."

Tolstoï and Turgénief abound with pictures quite as telling. But the bitter sarcasm of truth is by no means the only characteristic of their novels; their power in pathos is even more striking. Take in illustration the following from Turgénief's "Fathers and Sons." Bazarof, the hero of the story, has been at home for three days, after an absence of three years. He has just announced to his doting old father, Vasili, that he must leave in the morning. The old man is stupefied with the news, for he had thought his son would remain with him.

Vasili suddenly stopped and started for the door.

"We shall see each other soon again, father, I promise you."

But Vasili Ivanovitch did not return. He left the room, making a gesture with his hand. Coming into his bedchamber he found his wife already asleep; and he began to pray in a low voice so as not to disturb her slumber. However, she waked up.

"Is it you, Vasili Ivanovitch?" she asked.

"Yes, my dear."

"You have just left Yeniushka? I fear that he is not comfortable sleeping on the sofa. Yet I told Anfisushka to give him your field-mattress and the two new cushions. I would have given him our feather-bed too, but I think I remember he does not like to sleep too easy."

"That's no matter, my dear; don't trouble yourself. He is comfortable.—Lord have pity on us sinners," he added, continuing his prayer. He did not wish to announce the tidings that would have broken his poor wife's rest.

The two young men took their departure the next morning. Everything in the house from early that morning assumed a sad aspect. . . .

When Bazarof, after having repeated again and again that he would come back before a month was over, finally tore himself from the arms that held him back, and sat down in the *tarantás;* when the horses started, and the jingling of the bells was mingled with the rumbling of the wheels; when it was no use to look any longer; when the dust was entirely settled, and Timoféitch, bent double, had gone staggering back to his lodging; when the two old people found themselves once more alone in their house, which seemed also to have become smaller and older, . . . Vasili Ivanovitch, who but a few moments before was waving his handkerchief so proudly from the steps, threw himself into a chair, and hung his head on his breast. "He has left us," he said with a trembling voice,—"left us! He found it lonesome with us. Now I am alone, alone," he repeated again and again.

Arina Vlasievna drew near him, and, leaning her white head on the old man's white head, she said, "What is to be done about it, Vasili? A son is like a shred torn off. He is a young hawk: it pleases him to come and he comes; it pleases him to go and he flies away. And you and I are like little mushrooms in the hollow of a tree: placed beside each other we stay there always. I alone do not change for thee, just as thou dost not change for thy old wife."

Vasili lifted his face, which he had hidden in his hands, and embraced his companion more tenderly than he had ever done, even in his youth. She had consoled him in his disappointment.

The following is from Count Tolstoï's "Anna Karénina."

The heroine has abandoned her husband, child, and home, for a new lover. She cannot forget her little son. She returns to him on his birthday. She selects the morning for her visit, at the hour she knows her deserted husband will still be sleeping. The servant recognizes and admits her. She comes to the chamber door of her son.

Anna stopped and waited.

"He has just waked up," said the Swiss coming back, and as she spoke, Anna heard the sound of a child yawning, and merely by the sound of the yawn she recognized her son and seemed to see him alive before her.

At the right of the door was a bed, and on the bed a child was sitting up in his little open night-gown; his little body was leaning forward, and he was just finishing a yawn and stretching himself. His lips were just closing in a sleepy smile, and he fell back upon his pillow still smiling.

"Serozha!" she whispered in the child's ear.

He raised himself on his elbow, turned his frowzy head around, and, trying to put things together, opened wide his eyes. For several seconds he looked with an inquiring face at his mother, who stood motionless before him. Then he suddenly smiled with joy; and with his eyes still half-closed in sleep, he threw himself, not back upon the pillow, but into his mother's arms.

"Serozha, my dear little boy!" she stammered, choking with tears and throwing her arms around his plump little body.

"Mamma!" he whispered, cuddling into his mother's arms so as to feel their encircling pressure. Smiling sleepily, he took his hand from the head of the bed and put it on his mother's shoulder, and climbed into her lap, and pressed his face to his mother's neck and shoulders.

"I knew," he said, opening his eyes, "to-day is my birthday, I knew that you would come. I am going to get up now," and as he spoke he fell asleep again.

Anna devoured him with her eyes. She pressed him to her heart, and the tears prevented her from speaking.

"What are you crying for mamma?" he asked, now thoroughly awake.

"I will not cry any more—it is for joy. It is all over now," she said, drying her tears. "*Nu!* go and get dressed," she added, after she had grown a little calmer, but still holding Serozha's hand. She sat down near the bed on a chair which held the child's clothing. "How do you dress without me? How—" she wanted to speak simply and gayly, but she could not, and again she turned her head away.

"Mamma, dear little darling!" he cried, throwing himself into her arms.

"Take it off," said he, pulling off her hat, and seeing her head bare, began to kiss her again.

"What did you think of me? Did you believe that I was dead?"

"I never believed it."

"You believed me alive, my precious?"

"I knew it! I knew it!" he replied, repeating his favorite phrase; and seizing the hand that was smoothing his hair, he pressed the palm of it to his little mouth, and began to kiss it.

Such tender, truthful scenes might be multiplied indefinitely. We turn, however, to another sort of descriptive writing, that finding its subject in the surroundings of the characters, the touches which make the setting for the figures. Gogol abounds in such picturesque bits.

Here is one:—

"I could not tell why the doors sang in this way. Was it because the hinges were rusted? Or had the joiner who made them, concealed in them some secret mechanism?

"I do not know; but the strangest thing was, that each door had its own individual voice. That of the sleeping-room had the most delicate soprano, that of the dining room a sonorous bass. As to that which closed the ante-room, it gave forth a strange, tremulous, and plaintive sound; so that by listening attentively these words could be distinctly heard: '*Batiushki!* I am freezing.'

"I know that many people do not like the squeaking of doors; for my part I like it very much. And when I happen to hear in St. Petersburg a door crying, I suddenly perceive the scent of the country, together with the memory of a small, low room, lighted by a taper set in an ancient candlestick. Supper is already on the table, near the open window through which the lovely May night looks into the room. A nightingale fills the garden, the house, and the slope to the river gleaming in the gloomy distance, with the glory of his voice; the trees gently rustle. *Bozhe moi!* what a train of memories arise within me!"

Or take the following from Tolstoï:—

"It snowed on Easter Sunday. Then suddenly, on the following day, a south wind blew up, the clouds drifted over, and for three days and three nights a warm and heavy rain fell ceaselessly. On Thursday the wind went down and then over the earth was spread a thick gray mist, as if to conceal the mysteries that were accomplishing in nature; the ice, in every direction, was melting and disappearing, the rivers overflowed their banks, the brooks come tumbling down with foaming, muddy waters. Towards evening the Red Hill began to show through the fog, the clouds drifted away, like white sheep, and spring, spring in reality was there in all her brilliancy.

"The next morning a bright sun melted away the thin scales of ice which still remained, and the warm atmosphere grew moist with the vapors rising from the earth; the dry grass immediately took a greenish tint, and the young blades began to peep from the sod, like millions of tiny needles; the buds on the birch trees, the gooseberry bushes, and the snow-ball trees, swelled with sap, and around their branches swarms of honey-bees buzzed in the sun. Invisible larks sent forth their songs of joy, to see the prairies freed from snow; the lapwings seemed to mourn for their marshes submerged by the stormy waters; the wild swans and geese flew high in the air, with their calls of spring. The cows, with rough hair, and places worn bare by the stanchions, lowed as they left their stalls; around the heavy-fleeced sheep, gamboled awkwardly the young lambs. Children ran bare-foot over the wet paths, where their foot-prints were left like fossils; the peasant women gossiped gayly around the edge of the pond, where they were bleaching their linen; from all sides resounded the axes of the *muzhiks* repairing their ploughs and wagons. Spring had really come."

This skillful portrayal characterizes every part of the work of the Russian masters. The above quotations can give but a slight idea of the range over which they travel in their works; they are simply average specimens of their realistic power. Thanks to the translators, we shall soon have in English, full sets of the works of each.

OUTLINE AND PROGRAMS.

OUTLINE OF REQUIRED READINGS FOR NOVEMBER.

First Week (ending November 9.)

1. "Walks and Talks in the Geological Field," from page 154 to page 197.
2. "Sketches from English History," from page 25 to page 67.
3. "Studies of Mountains." THE CHAUTAUQUAN.
4. Sunday Reading for November 7. THE CHAUTAUQUAN.

Second Week (ending November 16.)

1. "Walks and Talks in the Geological Field," from page 197 to page 236.
2. "Sketches from English History," from page 67 to page 109.
3. "Woman's Work in Moral Reform." THE CHAUTAUQUAN.
4. Sunday Reading for November 14. THE CHAUTAUQUAN.

Third Week (ending November 23.)

1. "Walks and Talks in the Geological Field," from page 236 to page 275.
2. "Sketches from English History," from page 109 to page 149.
3. "The Railway Industry." THE CHAUTAUQUAN.
4. Sunday Reading for November 21. THE CHAUTAUQUAN.

Fourth Week (ending November 30.)

1. "Walks and Talks in the Geological Field," from page 275 to page 318.
2. "Sketches from English History," from page 149 to page 185.
3. "The Great Star." THE CHAUTAUQUAN.
4. Sunday Reading for November 28. THE CHAUTAUQUAN.

SUGGESTIVE PROGRAMS FOR LOCAL CIRCLE WORK.

BRYANT DAY, NOVEMBER 3.

"He is almost the one of your poets who knows
How much grace, strength, and dignity lie in repose."—*Lowell.*

1. Roll Call—Quotations from Bryant.
2. Essay—Bryant: his ancestry; early training; juvenile poems (imitations of whose writings); college life; the "lawyer-poet"; marriage; poems referring to his wife; "The Ages," why written, and its rank among poems of its class; editorial work; later poems, their different styles showing the changing elements of his thoughts and feelings; old age, with no decay of poetic capacities; his death; tribute to his memory.
3. Music.
4. Recitation—"Robert of Lincoln."
5. Essay—Study of "Thanatopsis"; meaning of the word; statement of principal thought; attendant thoughts; name and analyze the figures; lesson taught.
6. Music.
7. Reading:—"Sella," with tableaux. (For general suggestions regarding tableaux see THE CHAUTAUQUAN of November '85, page 101).

   Before the curtain rises read to "Thus in her wanderings." Tableau—Sella holding up the slippers while her mother examines them. Costumes simple, but bright colors. Background of evergreen boughs sprinkled with flour and diamond dust. A rough painting can be easily made on heavy paper to represent the portion of the "lodge" in view. Curtain falls at "Nay, daughter, wear them not." Read to "Then trooping over hill and valley." Curtain rises on tableau described in paragraph ending "borders of her stream." Curtain falls; reading continues to "Now had the marriage rite been said," when curtain rises on tableau of the merry-making, falling at "these later times can guess." (The same branches without the snow may form the background.) Read to "And stood before the youths with such a look," when curtain rises, falling at "Gathered and drew them down." Read to "So passed her life." Curtain rises on Sella with "fair unwrinkled features," but "white locks." With picturesque surroundings and a succession of colored lights this tableau should be made beautiful enough to close the series appropriately. Read to "So old traditions tell, before she died," omitting the rest.
8. Music.

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SECOND WEEK IN NOVEMBER.

1. Roll Call—Quotations about England.
2. The Lesson—As given in the "Outline" for two weeks.
3. Map Exercise—Geography of the British Isles: position; divisions; size; population; shires; old Roman divisions; divisions under the Saxon Heptarchy; Irish kingdoms.
4. Outline Sketch—History of Britain under the Romans: invasion of Cæsar; the full conquest of England; revolts against the Romans; invasions of the Picts and Scots; invasions of the Saxons; noted persons—Caswallon; Caractacus; Boadicea; Henghist and Horsa.

   Music.
5. Paper—History of Britain under the Saxons: the Saxon conquest; founding of the Heptarchy; Danish incursions; arrival of the Normans; noted persons—Egbert; Alfred the Great; St. Dunstan; Sweyn; Canute; Harold; William the Norman.
6. Recitation—"The Fiftieth Birthday of Agassiz." By Longfellow.
7. Essay—An Imaginary Visit to the Scenes of the Carboniferous Age.
8. Table Talk—News of the Day.

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THIRD WEEK IN NOVEMBER.

1. Roll Call—Quotations about History.
2. The Lesson.
3. Paper—The Legendary History of Britain: the building of London, and its early names; noted persons—Brutus; Lear; Lud (from whom London was named); Cymbeline.
4. Outline Sketch—Condition of Society under the Norman Kings: the Feudal system; the Norman Castles; oppression of the Saxons; institution of Knighthood; languages spoken; the final blending of the Saxons and Normans into the English people.

   Music.
5. Selections from Kingsley's "Hereward," and Scott's "Ivanhoe," illustrative of the period of the Norman conquest.
6. Recitation—"The Petrified Fern." Anon.
7. Paper—Monstrous Forms of Animal Life in the Geological Ages. (Obtain as many illustrations of these as possible; a number will be found in "Webster's Dictionary.")
8. Table Talk—Earthquakes.

FOURTH WEEK IN NOVEMBER.

1. Roll Call—Quotations regarding English Historians.
2. The Lesson.
3. Outline Sketch—The Races of ancient Britain; their characteristics and customs: the Britons; Saxons; Scots and Picts; Angles; Welsh; Jutes.
4. Paper—Mythology and Religion of ancient Britain: gods for whom the days of the week were named; King Arthur and his Knights; the Druids, and Bards; St. Cuthbert; Cædmon.

Music.

5. Table Talk—The Magna Charta and its influence on the growth of liberty.
6. Recitation—"The Norman Baron." By Longfellow.
7. Reports from "watchers" appointed beforehand to observe the annual showers of Meteorites occurring about November 16 and 27.
8. "Questions and Answers" in THE CHAUTAUQUAN.

EXPERIMENTS.

Two experiments easily arranged, and illustrative of phases in world-making are given: 1st. Into the bottom of a large glass tumbler or fruit can, in order that one may see through it, fit a piece of wood. Into the center of this fix a wire rod. Half way down the rod fasten a disk about an inch in diameter, made of paste-board or of thin wood. Bend the top of the rod so it can be used as a crank for turning the rod. Into the vessel pour alcohol and water, about one part of the former to three of the latter; the exact proportion can be obtained only by testing in the following manner: Drop a globule of olive oil from a pin point into the mixture, and whenever it will stay where it is placed by the pin, the proportion is right. If the globule rises there is too much water, if it sinks, too much alcohol. Now pour down the rod enough oil to make a globule two or three inches in diameter; this will follow the rod down to the disk. Then turn the crank, not very swiftly, but steadily. The ball of oil will soon begin to throw off parts, and these will form into rings, which will themselves revolve while they go around the ball.

2nd. Take a strip of tin about a quarter of an inch in width, and form into a hoop about six inches in diameter. Through the tin bore two holes opposite each other through which a wire rod may be passed. Solder one end of the wire where it passes through the tin, to the tin, or fasten it in any other way, so that it cannot work up and down, as the other side at the upper end of the rod must. Resting the wire, which has been ground to a point at the lower end, on the table, by means of a string wound around the upper part, give a swift whirling motion to the hoop which will immediately bulge at the center, illustrating the flattening of the earth at the poles, and its enlargement at the equator.

LOCAL CIRCLES.

C. L. S. C. MOTTOES.

"We Study the Word and the Works of God."—"Let us Keep Our Heavenly Father in the Midst."—"Never Be Discouraged."

C. L. S. C. MEMORIAL DAYS.

1. OPENING DAY—October 1.
2. BRYANT DAY—November 3.
3. SPECIAL SUNDAY—November, second Sunday.
4. MILTON DAY—December 9.
5. COLLEGE DAY—January, last Thursday.
6. SPECIAL SUNDAY—February, second Sunday.
7. FOUNDER'S DAY—February 23.
8. LONGFELLOW DAY—February 27.
9. SHAKSPERE DAY—April 23.
10. ADDISON DAY—May 1.
11. SPECIAL SUNDAY—May, second Sunday.
12. SPECIAL SUNDAY—July, second Sunday.
13. INAUGURATION DAY—August, first Saturday after first Tuesday; anniversary of C. L. S. C. at Chautauqua.
14. ST. PAUL'S DAY—August, second Saturday after first Tuesday; anniversary of the dedication of St. Paul's Grove at Chautauqua.
15. COMMENCEMENT DAY—August, third Tuesday.
16. GARFIELD DAY—September 19.

For three years the Scribe has been an occasional visitor at the meetings of Circle Delight of X. X is a small town, young in years, and hard-worked. The people experience often the struggle of making the two ends meet, but they are cheerful and determined. One motto is engraven on the gates—to make the most of life. The spirit of the plucky little town inspires the Local Circle. The members having few opportunities and small leisure for culture, determined at the outset to make their society a permanent institution, and as good as it could be. Many things that they have done are worth attention, but none of more than this inaugural vow.

The Scribe's first thought on visiting the room in which Circle Delight holds its meetings, was that either it must be blessed with a rich patron or that its members had invested a goodly sum in its furnishing. The long table around which nearly forty persons were gathered, was strewn with books and pictures. The walls were hung with maps and engravings. Several low book-cases and cabinets were ranged about the walls. But money was not the secret of the plenty; the pains-taking and planning of three years had produced the "helps" in the room. The leader kindly explained how one thing after another had been secured.

"Our maps," he said, "are home-made. It is a very easy matter to enlarge a small map by laying out your pattern in small squares and then making on your large sheet large squares to correspond. This insures a true scale and you can fill in with an outline or with details. We have here a map of Greece, another of Asia Minor, a third of the Islands of the Ægean Sea; this of Athens in the days of its greatest prosperity finishes our Greek series. They are all drawn on sheets of paper obtained from the printing office, pasted on cloth, and mounted on curtain rollers; probably the cost of each was not over fifty cents, and the time. You see we have a Roman series, an English series including this plan of London, and an outline map of modern Europe. The easel in the corner contains a half dozen maps of various portions of the world, made interesting by the developments of the times. Our engravings are shams—every one of them, and look much better by night than day. They are

nothing but newspaper pictures mounted on bristol-board; but they cover a large range of subjects and answer every purpose. These loose ones on the table are too small for the wall and have been mounted for our portfolios, of which we have a dozen. Our scrap-books are very largely illustrated. Here is one of the *literati*. We cut the pictures, most of them, from Houghton, Mifflin & Co.'s illustrated book catalogue, took those in the *Book-Buyer*, and are continually adding others from all sorts of sources. We have a scrap-evening once every two months; when the members meet to arrange what has been collected. Every member takes pride in furnishing something, so that we are rapidly increasing our illustration department. We take great care in arranging our matter and vigorously exclude all trash." These ideas for scrap-books, portfolios, and maps were ingenious, to be sure, but nothing particularly new; what astonished the Scribe was the enthusiastic patience with which they had been carried out, and the really great results produced by the comparatively small means. Of the library and cabinets of Circle Delight, the Scribe will have something to say another month.

FOREIGN NEWS.

The report from the OSAKA (JAPAN) station to the American Board's Mission, contains the following:—

"The Chautauqua Literary Society that started last year with a membership of seven hundred, has already nearly doubled its numbers. Its monthly publication, translated directly from THE CHAUTAUQUAN, has a wide circulation, and is doing much to awaken an interest in Christianity in remote places where as yet no living voice has witnessed for the truth. Frequent letters come to the officers asking such questions as, 'Who is God,' 'Who is Christ,' 'What is baptism,' 'sin,' 'redemption?'

Among many interesting stories we give only one:—

"A young man in Otsu joined the society. His elder brother on looking over the magazine saw its connection with Christianity, and tried to dissuade his younger brother from having anything to do with it; but in vain. So he wrote to one of the officers of the society, asserting his right to control his brother, and begging that he might be cut off from the society's membership. To which it was replied that he could go ahead and use whatever power as elder brother he possessed, but he must not expect to call in the power of a stranger to control his younger brother. A month later, another letter came from the elder one, apologizing for his previous letter and asking also to be admitted to the society."

The following letter and abridged circular read by Chancellor Vincent at the afternoon session of the Recognition Day Services at Chautauqua in August, will be full of interest to our readers:—

JAFFUA COLLEGE, BATTICOTTA, CEYLON.

CHANCELLOR J. H. VINCENT, LL. D.:—

DEAR SIR:—I send you a circular which was recently put out by a committee of educated Tamil young men, residents of the province of Jaffua, Ceylon. In it they set forth a plan which will, they hope, help to create a sadly needed taste for reading among the natives. You will notice that it is, although bearing the initials—and designedly so—of the C. L. S. C., a very small affair beside that. The principal reason for this fact is the very small amounts of money afloat among the people. The cost of living is small and salaries are in proportion, so that the amount which can be expended for intellectual food is to an American eye pitiably little. This accounts for the books from which the list is chosen being all the smallest and cheapest that could be had. If the experiment succeeds, perhaps we may expend more.

Yours respectfully,

IRVING F. WOOD.

THE CEYLON LITERARY AND SCIENTIFIC CIRCLE.

Aim. The aim of this new organization is to encourage habits of reading among the educated classes of Ceylon and to increase their general information.

Methods. 1. It proposes to do this by a course of reading to be followed in unison by all who enter into the plan.

2. This course will extend through four years, occupying nine months of each year.

3. Twenty minutes each week-day will be sufficient to read the prescribed course.

Examinations and Certificates. Examinations conducted by thoroughly competent persons will be held once in three months at convenient centers.

Members. Any one who understands enough English to read the selected books may become a member.

Books. The books for the coming year will be chosen from the small, cheap pamphlet books of the Chautauqua Literary and Scientific Circle. Nine books will be chosen from the following list. Prospective readers are requested to send in their applications the names of nine books from the following list, that they would like to read. The books receiving the highest number of votes will be chosen for this year's reading.

List of Books. (1.) How to Study the Bible. (2.) English History. (3.) What Noted Men Think of the Bible. (4.) What is Education. (5.) Roman History. (6.) Christian Evidences. (7.) The Book of Books. (8.) American History. (9.) English Literature. (10.) Self Education. (11.) Man's Antiquity and Language. (12.) The World of Missions. (13.) What Noted Men Think of Christ. (14.) Outlines of General History. (15.) Assembly Bible Outlines. (16.) Normal Outlines for Primary Teachers. (17.) The Teacher before his Class. (18.) Good Manners. (19.) Alcohol. (20.) Parliamentary Practice.

Annual Gatherings. If it should seem best, an annual gathering of the readers will be held at some convenient place and time, for mutual discussion of future plans and work, with, perhaps, lectures upon the subjects studied and other entertainments.

A seed sprouts in Scotland. A recent letter from DUNDEE contains the following:

"I am desirous of helping on the work of the C. L. S. C. in this place if I can. If you can send me circulars I shall undertake to distribute them in channels where they are likely to do good. I shall be glad to distribute two hundred or three hundred of the popular circulars about the C. L. S. C. Also you might send a few on the C. Y. F. R. U., the Musical Circle, the Youths' League, and the various other departments. I hope to get a public meeting and to do what I can, either to organize a Local Circle or to advise others in the matter. I shall at least sow the seeds, and try to nurse any that may come to life."

CAPE OF GOOD HOPE, SOUTH AFRICA, May 4, '86. "Our WELLINGTON Local Circle is keeping up its monthly meetings with interest. Last week we celebrated Shakspere Day by having a scene read from "Midsummer Night's Dream" and music from the same play. There was an attendance of about thirty; though our circle numbers about twenty-five."

THE OPENING.

At this writing, Opening Day, Oct. 1, is still to come. A few circles, however, have called their forces together. ——The Alphas of RUTLAND, VERMONT, opened the season with Camp Fire, indoors. A blazing pile of boughs was brought into the drawing room. The members of the circle, about thirty in number with a few guests, were then led into the dark room but the Camp Fire soon lit up the group and the exercises began with the recitation of lines, written for the occasion. As the flames leaped up and the boughs crackled, the poem, "City of Light" from the Camp Fire service was sung by a concealed quartet with violin accompaniment. After the literary exercises, which consisted of selections from the service, seven new members were admitted, a new constitution adopted, and officers elected for the ensuing year.——At WAREHAM, MASSACHUSETTS, a pro-

gram announces a Camp Fire and a Trip to Mecca, which means of course to Chautauqua, with the cordial invitation:

"Come! Wear your Badge! Bring a Friend, and a new recruit, if possible! Let us have a royal opening for 1886–7."

———The second annual excursion of the class of '88 took place at the Willows, SALEM, MASSACHUSETTS, Sept. 1. All Chautauquans with their friends were invited. An historical address was delivered by the Rev. Wm. W. Hayward. Ample opportunities were afforded for boating, fishing, etc. A band concert was given in the afternoon. Visits were made to Essex Institute, East India Marine Hall, Peabody Library, Art Gallery and Museum, Roger Williams' Church, Witch House, North Bridge, and many historic houses and places.

In NEW YORK CITY a Chautauqua Branch starting out with a membership of forty, has been added to the Young People's Christian Association.———A new circle was formed September 4, at PHILADELPHIA, to be called the Oxford C. L. S. C. A membership of eleven is reported.———Another at BEAR LAKE, MICHIGAN, membership twelve.———From LOUISA, KENTUCKY, the secretary writes, "When I came here about a year ago there was no one else in town reading the course, and few had heard of it. There is now a flourishing circle of twenty-five members, average attendance about eighteen, who from their interest would not vote to take a summer vacation, but have continued to meet and to study the miscellaneous questions in THE CHAUTAUQUAN, etc. They are all enthusiastic, and are soon to give a public entertainment to show what they have been doing during the year. Long live the White Rose Circle of Louisa!"

———A circle was organized August 19, at CLARENCE, IOWA.

———A letter from COLBY, KANSAS, reports the organization of a new circle with a prospect of twenty members.

———Another is reported from WELLSVILLE, with a membership of eleven.

A correspondent from BAXTER SPRINGS, KANSAS, writes: "Last October a Local Circle was organized here, with eleven members. We met regularly once every week at the residences of the different members, observed the Memorial Days, and took great interest in the work. We re-organize in October, and expect a larger membership."——— The Rose Standish Circle of PLAINFIELD, CONNECTICUT, met in September for its new year's work, with several new members.———Enthusiastic C. L. S. C.'s met in OVID, MICHIGAN, after their summer's vacation, anxious to begin again their pleasant work.———From EVANSVILLE, WISCONSIN: "We have a club of twenty. All are delighted with the work."——— The Acme of PALMERSTON, CANADA, met every two weeks last year, having a membership of twelve, and have begun the meetings again this fall with a great amount of enthusiasm, and a prospect of many new members.———The Eaton Circle of SOUTH WALTHAM, MASSACHUSETTS, is anticipating a very interesting series of meetings and earnest work.———The local circle of KINGSTON, PENNSYLVANIA, has a membership of forty-five, all of whom belong to the class of '89.———From LEHIGHTON, PENNSYLVANIA, comes a report of twenty-six faithful workers who have held twenty-two meetings during the past year.———The circle at CONNEAUT, OHIO, re-organized with a few new members.———The Rollingstone Circle of MINNESOTA CITY reports a rapid growth of the Chautauqua spirit.———At FUSNO CITY, CALIFORNIA, re-organization is reported.

THE SUMMER CELEBRATIONS.

"The end crowns all."

The meetings, held in honor of the completion of the circle year of 1885–'86, have been quite generally reported. They abound in suggestions, not for "closing exercises" merely, but for special occasions of all kinds. The Central annual Circle of TORONTO, CANADA, held its third conversazione at the Normal School of the city. The president's address was followed by a *musicale*, after which the museum and galleries were opened for promenading.———A review of the year's work, under the heads of "Our Readings" and "Our Meetings," formed the program of the Pleasant Hour Circle of BRANTFORD. Some fifty guests enjoyed the evening. The Brantfords expect to form a new circle this year.

The Socratic Circle of BRADFORD, VERMONT, gave its second annual banquet in July. The closing quotation on the handsome cards of invitation is in harmony with the reports we have received of the affair.

"A most delicious banquet,
And brave attendance."

———The "Lone Pine" of CASTLETON, celebrated by reviewing the progress of the year. The circle has sent members into six different states; good seed, well scattered.

The Aurelian Branch, HOPKINTON, NEW HAMPSHIRE, closed its first year's work by a pleasant review and social. The Aurelians planned for a Chautauqua picnic in July. Was it held?

The Progressives in the Hurlbut Circle of EAST BOSTON, held Commencement exercises in June last.———At SPENCER, MASSACHUSETTS, a hundred or more friends gathered at the musical and literary entertainment with which the year was closed.———The Farewell meeting of the Seaside of CHATHAM included a most interesting talk on Rome.

———The circle started at ARLINGTON in March, closed with pleasant exercises and a report of a large amount of work for so short a life.——At SOUTHFIELD the Umpahine held a farewell meeting of special character.

Two CONNECTICUT circles send word of successful closing meetings, the Crescent of SHELTON and the Woolsey of NEW HAVEN. The programs were arranged to influence particularly the invited guests to become members another year.

The Philomathean Circle, BROOKLYN, found at the end of its first year's work in June, that it had held sixteen meetings and had had an average attendance of thirty-eight. This good standing was celebrated by an elegant supper, served by a hospitable member.———The Janes Circle of BROOKLYN extended a kindly courtesy to the Chautauquans of the city in June, tendering them a reception at the Janes Methodist Episcopal Church. Ten circles of the city were represented in the literary program carried out: Janes, Gleaners, DeKalb, Pierian, Philomathean, No Name, Lewis Miller, Brooklyn, Ad Astra, and Hale.———The Inquirers of SAUGERTIES had seven graduates to send out last June, so that a peculiar significance attached to their meeting. The program of the occasion was gotten up to serve as a souvenir.——— The Chautauquans of ROCHESTER held a general meeting at the close of the year and decided that the impetus which the work had received at the beginning of the season, had not only been sustained throughout the year but gave signs of being even greater another fall.——— The Laurel Circle of SMYRNA requested the pleasure of the company of its friends for a social entertainment in June.

———The Phillips Circle of NEW YORK CITY was fortunate enough to have Chancellor Vincent, Dr. J. L. Hurlbut, and Mr. Charles Barnard present at the last session.——— Other interesting and profitable closing sessions are reported from AMSTERDAM, from the Browning of BRUNSWICK, and the WEST HARLEM Branch.

At BRIDGEPORT, NEW JERSEY, the year ended with double festivities. First, the circle went to Philadelphia for a day

of sight-seeing in the city and Fairmount Park. Among the members is an amateur photographer who brought home several views as a memorial of the occasion. This expedition was followed by an entertainment to which were invited those who it was thought could be interested to join the class another year. A politic feature of the arrangements was scattering the Educational Circulars among the guests.

From CAMDEN, DELAWARE, the secretary sends this report: "We were made enthusiastic by the happy suggestion of a special farewell meeting, for the close of the study year. Accordingly we planned a program of quotations, story-telling, music, readings, a farewell address by the president, expressing satisfaction with the year's work and encouragement for the future. The happy evening closed with a social at which refreshments were served."

The Annual Chautauqua Home-gathering was held in June by the PITTSBURG, PENNSYLVANIA, Central Circle. A choice musical, literary, and social program was provided. ——The East End Branch of the same city entertained two hundred or more of its friends at its first annual entertainment in June.

The following bit of healthy reflection and skillful compliment comes from the *Lake Shore Bulletin* and is in honor of the June banquet of the PORT CLINTON, OHIO, Circle:

"It is always a refreshing state of things in any community, when the leaders of its society are of the anti-retrograding sort, in other words, when they are unitedly engaged in the important work of mental culture and intellectual improvement. So prone are we as individuals—amid the cares and perplexities of daily life—to become mentally rusty, to get into certain "ruts" and there to remain. The truth of this suggestion was fully realized by every one, who, on last Friday evening was permitted to make one of the merry C. L. S. C. banqueters. It was truly an intellectual feast, made doubly enjoyable by frequent strains of sweetest music and the perfume of flowers with which the room was profusely decorated."

Carleton Circle of HUDSON, MICHIGAN, had the pleasure of reading at its closing meeting the following poem dedicated to the circle by Will Carleton.

TO THE CARLETON CIRCLE.

[In response to their request for a word of greeting at their annual reunion, Monday evening, July 26, 1886.]

Sometimes there comes to me a word of cheer,
From yonder region where the sun goes down;
Where I have often watched him disappear,
And leave awhile the jewels of his crown.
That voice glides over Erie's stormy edge,
It climbs the Alleghanies' rugged ledge,
And tarries not for dale or mountain crest
Till it makes music in my own home nest.

It says, "We would be better, wiser, truer,
Each day we live—the best that is in us,
We aim to nourish, that it may endure,
And pray that God will help our striving thus,
With reason-builded curiousness we yearn
The depths of history's changing tides to learn;
The weird discoveries that proud science made,
And the pen's song—we ask them all for aid."

The old town marches eastward to the sea;
Roofs, windows, belfries, door-stones—all are here;
Again its busy streets encompass me—
Their outlines never looked so full and clear,
Shop, factory, office, church, and clattering mill,
The trim red school-house smiling from the hill,
The mimic river with its placid tide,
The quaint old grave-yard lingering by its side.

* * * * * * *

And now there float to me some words of cheer,
From yonder region where the sun goes down;
From kindred souls, whose presence would be dear—
From the *loved living* of my native town!
To prove once more an old truth it may serve,
That God e'er gives me more than I deserve,
That mid the struggles of your lofty aim,
You look this way and call to me by name.

Ah, would that I were worthy of the task,
To see that all your diamonds were saved!
'Tis the best joy that any one can ask—
To give to others what himself has craved.
Whoe'er can teach you life's most brilliant art,
To make the most of body, mind, and heart—
Will feel that fact, his inmost being bless,
More than the costliest jewels of success!

Sometimes there comes a blessed word of cheer
From yonder region where the sun shines high;
It brings a joy, it casts out every fear;
It is the motto of th'eternal sky!
Be true, be brave, be faithful, let your heart
With worldly joys and sorrows take their part;
While brain and soul cling to the gleaming cars
Whose goal is Heaven—whose stations are the stars.

Brooklyn, N. Y., July 1, 1886. WILL CARLETON.

——The Clarkes of DETROIT, closed the year with a brilliant musical and literary program. The Calvary Circle of that city joined patriotism with its farewells, and held an Independence Day celebration and social re-union at the same time.

The second annual banquet at TERRE HAUTE, INDIANA, was a decidedly *recherché* affair, though a little exclusive, only members of the circle were present at the festivities.

The MENDOTA, ILLINOIS, Chautauquans received high praise from the local press for the happy ending of their year. The usual literary entertainment, followed by a banquet, was the order of the evening.——St. Paul's Circle of CHICAGO sends the outline of a similar celebration.

At COVINGTON, KENTUCKY, the Bryant Circle made merry over the completion of the year's task. Well it might, according to the report of the secretary. "In short, our work during the past year has been better and more satisfactory than that done in any preceding year, and we are determined, with the throttle wide open and the safety-valve on, to go into next year's work and make it even better than during the year that is gone."

The MOBILE, ALABAMA, Circle numbered fully one hundred members last year, "the best people of Mobile," a correspondent tells us; and before beginning the summer's vacation this goodly company invited in their friends to the number of seven or eight hundred to enjoy with them an elaborate literary program.

The Central Park Circle of MINNEAPOLIS, MINNESOTA, reports a delightful time at the June meeting.——The Franklin Avenue Circle of MINNEAPOLIS closed the third year with thirty-one members. Their plan for using the vacation is unique and delightful. A social club called the Prowlers was formed, whose object was to take weekly excursions to places offering both pleasure and instruction. The society visited the electric light works, the flouring mills, the glass-works, the military fort, and a great many other places of interest.

The Pioneer of VIROQUA, WISCONSIN, was organized about the middle of last January, with ten members. Though so late in starting, the circle proved very successful. The last meeting was made a special affair to which friends were invited. A presentation to the presiding officer was one pleasant feature.

A musicale closed the year of the circle, at SHENANDOAH, IOWA. Held in a church and followed by a talk on the Chautauqua work, large results are expected from it. The Shenandoah Circle formed a Chautauqua Quartet last year, so is always provided with music.——The *Fairfield Tribune* concludes, in reporting the final ceremonies of the Fairfield Circle, that the organization was unusually

prosperous last year and contributed largely to both the literary and social enjoyment of its members.——The closing program of the Cynosure Circle at NEWTON, included studies of "Horatius at the Bridge" and "Battle of Lake Regillus." These numbers were managed in this way: two-minute essays were assigned on "Lars Porsena and Clusium," "The House of Tarquin," "The Tribunes," "The Janiculum," "Etrurium," and "The Fathers," and read before the first poem; before rendering of "Lake Regillus" short papers were read on "Vesta," "The Forum," "The Dictator," "The Shield that fell from Heaven," and "Castor and Pollux." A similar study of any difficult poem could be arranged and would be found very satisfactory.

This from the secretary of the Longfellow Circle of BOISE CITY, IDAHO:—"The year closed very pleasantly and with a favorable outlook for the future. At the last regular meeting of the circle a very interesting program was presented and a few evenings following, the circle was entertained at the residence of Governor Stevenson. Games, music, and an elegant lunch made the evening pass all too quickly, and we said good-bye with bright hopes for the coming year."

At SANTA BARBARA, CALIFORNIA, the Zenith City Circle numbered seventeen members last year. They gave a pleasant and varied entertainment to their friends in celebration of their success.

After the banquet the favorite form of farewell meeting seems to be the picnic. At MONTPELIER, VERMONT, the Idea Hunters held their closing exercises at the foot of Owl's Head.

A program quite too good to remain unquoted followed:

1. Toasts and Replies.
2. Resumé of the Year's Work.
3. Historical Sketch of the Circle.
4. Reading of a Poem.
5. Reading of an Original Tragedy.
6. Reading of an Original Comedy.
7. Reading of an Original Poem.
8. Reading of My Confessions.
9. Roll Call—Farewell Quotations.

About one hundred seventy-five persons joined in an outing at Penacook Park, CONCORD, NEW HAMPSHIRE, and voted it one of the pleasantest of the many enjoyable occasions of Concord's first Chautauqua season. As an example of happily chosen sentiments for after-dinner speeches we commend these used by the Concord friends:

The Chautauqua system, broad, versatile, searching, accessible—a most feasible road to a desirable end.

Dr. Vincent, the Chancellor of Chautauqua, to whom thousands are under deep obligations.

The influence of Chautauqua teachings,—its potency to be felt in succeeding generations.

The Chautauqua course, — a course of study adapted to the average adult as well as to the close student.

The influence of woman upon education.

Education, new and old.

The ladies of the Chautauqua class,—bright, intelligent, enthusiastic, an example to their brother students, and the saving element of the institution.

Education,—its influence on the press.

The Chautauqua year.

The WORCESTER, MASSACHUSETTS, Union Circle composed of the Local Circles of that city held a picnic at Natural History Park in June. Games and social intercourse furnished amusement. Supper was followed by toasts responded to by the members of the various circles. Early in the evening a Camp Fire was lighted and the usual songs and speeches followed. These unions are most valuable auxiliaries to the Chautauqua work in cities. Several now are giving splendid aid. In Philadelphia and vicinity the feeling has been growing for some time that better work could be done through a well-organized union. The result is the United Circle of Philadelphia. Each local circle retains its separate organization as heretofore. Each member of the C. L. S. C., whether member of a local circle or not, is eligible to membership in the United Circle upon payment of the annual fees. The affairs are conducted by a body of delegates elected from each circle; the circle being entitled to a certain representation according to its membership. It is proposed to hold during the winter months a course of lectures bearing upon the curriculum of the current year, these lectures to take in literary, scientific, and kindred topics.

In BEAVER COUNTY, PENNSYLVANIA, such an organization was formed in June by the circles of the county. A social reunion was arranged at NEW BRIGHTON, and at a business meeting held, a constitution was adopted. This society is known as the Beaver County Union of the Chautauqua Literary and Scientific Circle. The object is to foster and promote the Chautauqua movement in the county of Beaver, and through the Local Circles, endeavor to impress upon the people the value of the systematic course of reading provided by the C. L. S. C.

A union picnic was held in July by the combined circles of MT. PLEASANT, COLERAIN, ST. CLAIRSVILLE, MARTIN'S FERRY, and BRIDGEPORT, OHIO. An address with the Vesper Service formed an admirable entertainment. Fifty-eight regular, and one hundred twenty, local members were present, and several new names were added to the various societies represented.

At BROOKLYN, ST. PAUL, and a few other points, yearly meetings of the various circles are called. The spirit of the institution demands that in every city there should be some sort of a bond between Chautauquans.

The First Ward Mosaics of ROCHESTER, NEW YORK, held their first summer social at Sea Breeze Grove on the shores of the "Blue Ontario," in July. The invitation cards bore this address to "outsiders."

"Your name has been mentioned for membership in our circle. Its object is mental and social culture and mutual help and friendliness. Will you not attend a few meetings and decide to join us? The army of Chautauqua now marching on is one hundred thousand strong. Need we say more."

——At HAVANA the Glen was resorted to by the Chautauquans and friends to the number of eighty or more. The day was given up to unalloyed enjoyment, no attempt being made to give it a literary flavor, a kind of picnic we are most heartily in sympathy with.

A member of the Round Table Circle of JERSEY CITY, NEW JERSEY, tells how that circle closed last season by a trip to Sunnyside, the home of Washington Irving. "We took the boat to Tarrytown and the cars to Irvington, three miles distant. A short walk brought us to a retired spot in the rear of a beautiful stone church. Here, under the spreading branches of an old oak, we ate our lunch. A walk of a mile brought us to Sunnyside, 'beautiful for situation'. The grounds are large and well kept. The house is a curious affair of ancient Dutch style, surmounted by a weather-beaten weather-cock brought from Holland two hundred years ago. A walk of another mile, past many elegant places, brought us to Mr. Jay Gould's country-seat. A delightful half hour was spent wandering through the grounds and extensive conservatories. Then our walk was continued to Tarrytown, where we arrived in time to take the boat to New York."

Hawthorne Circle of WEST PHILADELPHIA, PENNSYLVANIA, so enjoyed its picnic at Wissahickon, Fairmount Park, that the secretary was inspired to tell the story in song—and a very pleasant song it is.——At MEADVILLE, the third annual picnic of the circle brought together a company of a hundred or more. The C. L. S. C. picnic has become one of the social events of the spring in this city.

A garden party closed the year of the WASHINGTON, D.C., Pansies. The circle and friends betook themselves to a beautiful suburban residence, where rambling, feasting, and a merry entertainment filled up the evening. A pretty feature of the program was the "bouquet of flowers." Each member chose a flower to wear, and was provided with an appropriate quotation. Nearly every blossom growing had its praises sung, from the "lilies of the field" to

"Dear little buttercup,
Sweet little buttercup."

The Chautauqua Fortnightly and Valley City Circles of GRAND RAPIDS, MICHIGAN, joined companies for an outing in July. Both societies were well represented, and a happily planned program was rendered.——The OVID Circle held thirty-eight meetings last year, and at the end of the course joined the Bitter Sweet Circle of ST. JOHNS, in a lawn fête at the former place. It was a most enjoyable affair.

A union picnic on a very large scale was that at WASHINGTON, IOWA. Chautauquans were present from WEST LIBERTY, MUSCATINE, BLUE GRASS, FAIRFIELD, BURLINGTON, and BRIGHTON. Elaborate arrangements were planned and carried through for the entertainment of the guests. Wisely these friends aim to make this an annual gathering, and have appointed FAIRFIELD as the scene of the '87 festivities.

Alki Circle of SEATTLE, WASHINGTON TERRITORY, has for two years been steadily at its work. The Required Readings have been strictly followed and, during its entire existence the weekly meeting has never been missed. As a reward for this faithfulness the Alki allowed itself an outing last summer, making an excursion to the grounds of the Puget Sound Assembly.

THE C. L. S. C. CLASSES.

TO ALL MEMBERS OF THE C. L. S. C.

The C. L. S. C. memoranda for the studies of '86–7 will be mailed early this fall to all members whose fees are paid, and to other members as fast as their fees are received. Let all C. L. S. C. students see to it that the annual fee of fifty cents is forwarded to the Plainfield office at an early date so that they may be supplied with all necessary helps for their work. In sending your fee, be sure to state to which class you belong, whether 1887, 1888, 1889, or 1890. Secretaries of local circles who forward fees for the members of their circles, are especially urged to bear this fact in mind. Keep a record of every order sent us, including dates, names, amount, and how money was sent. In case an order is lost, this will prevent much trouble and delay. Before forwarding a post-office order or postal note, examine it carefully, and see that it is properly dated, drawn for the right amount, and made payable at Plainfield, New Jersey (not N. Y.). Orders and notes not correct in these particulars have to be returned.

CLASS OF 1887.—"THE PANSIES."

"Neglect not the gift that is in thee."

OFFICERS.

President—The Rev. Frank Russell, Oswego, N. Y.
Western Secretary—K. A. Burnell, Esq., 150 Madison Street, Chicago, Ill.
Eastern Secretary—J. A. Steven, M. D., 164 High Street, Hartford, Conn.
Treasurer—Mrs. Julia N. Berry, Titusville, Pa.
Executive Committee—The officers of the Class.

Now is the time to look up and encourage those members of our class who are behind in the readings. Use every effort this last year to keep up the reading yourself and to help those who are behind. Many are coming in from former classes. Give them a welcome—and "lend a hand."

The Class occupied the upper room of the Congregational house at Chautauqua for registration this year. Having contributed for one share in the building, it is understood that we may occupy the room again next year for occasional meetings.

Miss M. L. Hopper, a native of Honolulu, Sandwich Islands, was present at several of our Chautauqua gatherings, and reported the existence of a flourishing circle of ten members in that city, five of whom are "Pansies."

Representatives were at the class meetings this year, present from eighteen states and territories, beside the District of Columbia, Canada, etc.

Mrs. Alden was at Chautauqua this year only during the after week. She came to rest. Those who promised to send items for the book, and have not done so, ought to write soon. She has received only a few of the letters promised. Her address is Carbondale, Pa.

A member of the Class of 1887, Mr. Edward Vladimir Dolgoruki, has the honor of inaugurating the Chautauqua work in the Cherokee Nation, mentioned in the *Note-Book* of the present issue. In August he wrote:

"I received a letter from the principal educators of the Cherokee Nation requesting my presence at Tahlequah, the capital of the territory, to explain to them and others the workings of 'Chautauqua.' I am now at Tahlequah, Cherokee Nation. By October I shall be able to report a large C. L. S. C., and by the middle of November I think that I will be able to report the formation of a 'Cherokee Chautauqua,' by authority of 'Indian Council.' The chief, Mr. Bushyhead, and the members of the council are, as individuals, in favor and personally under promise to bring up the question of a Cherokee or Indian Chautauqua before the next annual session of the council, and to take necessary administrative steps for the realization of this plan. I have also secured the hearty co-operation of the clergymen of the different churches; they are all enlisted and are already doing good work. The principals of different mission schools have tendered their help, and will be represented in the work. As soon as the council has passed the necessary laws and regulations, and voted a certain subsidy, we shall all put the shoulder to the wheel and organize a grand assembly. I suppose it will be held during the last week of June and first week of July."

CLASS OF 1888.—"THE PLYMOUTH ROCK."

"Let us be seen by our deeds."

OFFICERS.

President—The Rev. A. E. Dunning, Boston, Mass.
Vice-Presidents—Prof. W. N. Ellis, Brooklyn, N. Y.; the Rev. Wm. G. Roberts, Bellevue, Ohio; Mrs. D. A. Cunningham, Wheeling, West Virginia.
Secretary—L. Kidder, Connelsville, Pa.
Treasurer—The Rev. L. A. Stevens, Tonawanda, N. Y.

Items for the '88 column should be sent to the Rev. C. C. McLean, St. Augustine, Fla.

The '88's have adopted "Mizpah" as the watchword; the geranium as the class flower.

The Class held four meetings and made an excursion on the Lake at Chautauqua, last summer. Two hundred members of '88 were on the grounds. Fifteen states were represented, scattered through the union from Maine to California, from Michigan to Florida.

It must not be forgotten that the Class of '88 decorates the Hall of Philosophy for the Pansies in '87.

It is desirable that every member of this Class forward to the treasurer an order for the amount of stock he wishes to take in the new class building to be erected at Chautauqua. Shares, twenty-five cents each; how many will you take?

Have you a copy of Chancellor Vincent's book, "The Chautauqua Movement"? If not, do you not wish to purchase one? In sending the amount, one dollar, state that it is to be credited to the "'88 Class Bell."

The following correct solution of the enigma in THE CHAUTAUQUAN for October was sent in by a number of persons:—"He was a good man and a lover of his country." It was the remark made by the Emperor Augustus to his grandson in regard to Cicero.

CLASS OF 1890.—"THE PIEREANS."

"Redeeming the Time."

OFFICERS.

President—The Rev. D. A. McClenahan, Allegheny, Pa.
Secretary—George H. Iott, Evanston, Ill.
Treasurer—Mrs. E. P. Wood, 252 General Taylor street, New Orleans, La.
Vice-Presidents—John Lee Draper, Providence, R. I.; the Rev. Leroy Stevens, Mount Pleasant, Pa.; Charles E. Weller, St. Louis, Mo.; Mrs. Dr. Edwards, Randolph, N. Y.; Miss Anna L. Sanderson, Toronto, Canada.
Building Committee—Chairman, the Rev. H. B. Waterman, Griggsville, Ill.; Secretary, John R. Tyley, Chicago, Ill., with Miss Leonard, Mr. Davidson, the Rev. J. Hill, and Dr. J. T. Edwards, Randolph, N. Y.

Items for this column should be sent to Geo. H. Iott, Evanston, Ill.

Members of the Class of '90 should be particular to send to the Plainfield office, answers to the following questions:

1. Give your name in full.
2. Your post-office address, with county and state.
3. Are you married or single?
4. What is your age? Are you between twenty and thirty, or thirty and forty, or forty and fifty, or fifty and sixty, etc.?
5. If married, how many children living under the age of sixteen years?
6. What is your occupation?
7. With what religious denomination are you connected?
8. If you have been a member of the C. L. S. C. in past years, but are now beginning anew, state to what Class you formerly belonged.

They are of great importance in making up the records. Any member of '90 who has not already filled out the above form of application, can obtain a blank by applying to the Plainfield office, or can forward the answers numbered to correspond with the form printed above.

MEMORANDA.

The examination papers or "memoranda" of the C. L. S. C. consist of questions upon the required reading of the year, which are to be answered, as far as possible, from memory; where memory fails, the students are expected to refer to their books for help, but to give the answers in their own language.

The *required* memoranda contains four pages of questions, but any member who wishes to make a thorough review of the year's work, will be furnished with a twelve-page paper which may be substituted for the easier one. The filling out of the twelve-page memoranda, with 80 per cent of the questions correctly answered, will entitle the student to a white seal.

All students will be supplied with memoranda early in the year, so that they will be able to answer the required questions on any one book, as soon as the reading has been completed.

POST-GRADUATE CLASSES.

The following simple arrangement has been made for graduates who wish to pursue the current year's course of reading—with the under graduates:

An annual fee of fifty cents will entitle a graduate to all communications from the central office for that year, including the twelve-page memoranda on the regular year's reading, and the memoranda for the garnet seal course. In this way three seals can be earned: 1. For reading the four books of the garnet seal course, filling out the garnet seal memoranda, with 80 per cent of the questions correctly answered, a *garnet seal* will be given. 2. For reading the books of the *regular* course and filling out the regular four-page memoranda, a *special seal* will be given. 3. For filling out the twelve-page memoranda on the reading of the regular course, answering 80 per cent of the questions correctly, a *white seal* will be given. Graduates who take up the current year's course of reading, will be expected to *re*-read "Recreations in Astronomy," or else to substitute some equivalent work on the same subject.

CLASS OF 1882.—PIONEERS.

At Lake View, South Framingham, Mass., the New England Branch of the Class of '82 held several meetings. The members were few, but the enthusiasm was equal to assemblies of large numbers. The Pioneers are faithful and earnest. After eight years of study they still pursue the C. L. S. C. work, and are constantly bringing new recruits.

CLASS OF 1883.—THE VINCENT CLASS.

"Step by step, we gain the heights."

OFFICERS.

President—The Rev. R. S. Holmes, Plainfield, N. J.
Vice-President—Miss A. C. Hitchcock, Burton, O.
Secretary and Treasurer—Miss A. H. Gardner, 220 Northampton St., Boston, Mass.

The secretary will be very glad to receive items of interest for this column concerning the Class from any member of 1883.

In accordance with Dr. Vincent's suggestion at Chautauqua, the Heliotrope was chosen as the class flower.

EDITOR'S OUTLOOK.

CAN BUSY PEOPLE READ THE C. L. S. C. COURSE?

It is a great satisfaction to be busy. But it involves a danger: it is a good excuse, and an unfailing excuse is a demoralizing possession. Too busy over home duties, teaching, business, social or church demands, is a common reason for not doing a great many things, and, more often, perhaps, for neglect of systematic reading than for anything else. There is a general feeling that busy people ought not to be asked to read or study, that their excuse is valid.

We are asked, can busy people read the course of the Chautauqua Literary and Scientific Circle? That is, can they give on an average forty minutes a day, each day in the year, to intellectual pursuits? What has been done, is the best answer to the question, what can be done.

Mr. Gladstone's claim to the title of busy man, no one can doubt. Yet in the midst of the problems, responsibilities, and strains of a long public career, he has found time for classical studies, and a remarkable range of reading. In the past year when his miscellaneous writings were collected, they filled seven volumes; and the range they covered included art, science, biography, politics, and history.

Less than a year ago was issued the most critical and scholarly work on American poetry which has yet appeared, Mr. E. C. Stedman's "Poets of America." It had been preceded by the "Victorian Poets," an equally valuable work on the British poets of the age. For years readers of periodical literature have watched the monthly issues for poems or critiques from the same author; yet Mr. Stedman is a Wall street stock-broker, carrying on a business which is universally conceded to be the most exciting and nerve-wearing that can be engaged in. He has found time not only for study but for production, not only for production but for imagination.

Frances Hodgson Burnett, one of the most charming of our novelists, determined soon after her marriage that her husband must have the advantage of special study in his profession. Though she had the care of a home and child, she earned with her pen the money which enabled the little family to spend two years in Europe. To-day in Washington, in spite of the social and home demands, she finds time to write such stories as "Through one Administration" and "Little Lord Fauntleroy."

To come into our own Circle, take but one of the innumerable cases which are brought to our notice. A circle in Pennsylvania consists of a mother and two daughters, one of whom is a dressmaker and the other a music teacher. The mother keeps a boarding-house and provides for a family of fourteen, on the average. During the four years from '82 to '86, mother and daughters have done the entire work of this household, cooking, washing, and housework without hired help; the one daughter has made an average of two dresses a week, and the other has taught music to, from two to twenty-six pupils. Meanwhile a new house has been papered and otherwise fixed up throughout by their hands, and one hundred fifty yards of rag carpet have been made. Despite two cases of severe and protracted fever, and many hindrances from sickness, moving, etc., neither mother nor daughters have ever failed to have their memoranda completed by July 1st, of each year; they were at Chautauqua last August to graduate with the class of 1886.

The testimony of the busy is we CAN.

How do they do it? By dint of finding time, using the walking hour for meditation and observation, saving the betweentimes for thought and study. By concentration like Mrs. Somerville. By an interest in reading equal to George Eliot's who declared that she awaited the fourth volume of a certain profound history as eagerly "as any voracious novel-reader for Bulwer's last." By grasping, not dawdling over, moments and opportunities.

Can busy people read the Chautauqua course? Yes, we answer, they can, easier than not, for the stimulus of the reading will brighten the daily grind. Do not do yourself the wrong of excusing yourself from growing. Do not allow your routine duties to become hitching posts to which you tie yourself and declare that you cannot get away. Observation and your own consciousness testify that an intellectual life may be yours if you will it.

No ordinary pursuit demands more than eight to ten hours labor at the outside, except possibly, in the periods of "rushes" incident to all callings. It is either poor economy or lack of interest which prevents some time being given to systematic study.

"I do not have time," "I am too busy" is but another way of saying "I am not sufficiently interested in the subject." The fact remains that we do find time for those things which we enjoy. If we enjoy intellectual pursuits we shall find some time for them. After all it is what is not done rather than what is done that is the best index to the taste and character.

THE LITERATURE OF THE SOUTH.

The South has made great progress in the last fifteen years in nearly if not quite every department of human effort and advancement; and it is especially pleasant to count up the literary gains of that section of the nation.

There can be no doubt that slavery made an atmosphere unfriendly to literature—at least to its growth. But it is equally true that the Civil War by giving a harsh discipline to its noblest spirits, contributed to the intellectual development of the South Literature may well offer Agur's prayer—"Give me neither poverty nor riches"—for the too affluent man is seldom a writer, and the very poor man cannot, as a rule, afford to pay for the preparation for literary work. The rich of the South under slavery were too well-fed to be poets, and the poor were too ignorant. The colleges bred some men to letters, and chance-grown genius also did something to encourage the hope that literary art might flourish in the South. But the new era has "brought in a better hope", for the new names are of higher promise than the old.

Sidney Lanier's untimely death deprived us of much that his genius promised; but his performance as a poet and critic places him high on the national roll of authors. Mr. Cable, as a novelist, is so nearly the best of his class that we may well doubt whether posterity may not allot him the first honors.

The list might be greatly extended. What is especially noteworthy is the kind of regularity of the rising of the Southern stars. The Southern crop of authors is large and of excellent quality, including such names as Charles Egbert Craddock, Paul Hamilton Hayne, John Esten Cooke.

What is the cause of the change? Probably the largest factor in the result is the jostling and shaking of a period of transition, acting upon a quick intelligence and a sensitive temperament. The war and reconstruction periods produced a vast amount of literary material in the South. The struggle lasted until 1876. For sixteen years the greater part of the South was in a state of suffering and unrest. A new order came to exist only after an intensity of conflict which Northern people have never realized. One result of that disturbed and unhappy life is a new literature. Probably it has but just begun to arrive at our doors. Perhaps we are hardly yet ready to welcome it. Perhaps the best work to be expected from that period's influence will be done by a still younger generation.

We believe that no one has established any close connection

between public education and literature. The free gift culture does not breed literary artists except by chance — and when the chance is furthered by sensitiveness and suffering. Hard-got, dearly-bought, and therefore well-beloved learning and training, usually put in an appearance in the person of the gifted writer. At all events we cannot produce poets to order by a common school system. The free schools are good for so many other things that we need not blame them when they fail to give us literature. It is not, therefore, any new education which is blossoming into Southern literature. It is doubtless sorrow, and sorrow's reflex of energy, which inspire through secret chambers of inner life, the new and melodious voices singing across the old Mason and Dixon's Line.

But though the probable cause of the new growth of Southern literature is to be found in an experience of sorrow, directly and indirectly affecting the new authors, it does not follow that the growth will disappear as the sad days retire into old history. Literature is a plant which grows from its own seeding. The current crop of good books will produce another crop. A great impetus has been given to this kind of intellectual activity by the successors of the Cables and Craddocks. The South is likely to remain morally and socially picturesque. Life there will continue to wear variegated garments which will naturally attract and inspire the fancy. The relations of whites and blacks will retain peculiarities and develop situations unknown in the North. It is possible, too, that the rise of the black man to all that men may aspire to—wealth, culture, honors, fame—may surprise the South itself into new forms of admiration.

WEATHER PROPHECY.

A weather prophet recently threw the colored people of the South into convulsions by threatening that section with a great earthquake. Of course the threat was not executed—the prophet had no control over the forces concerned in earthquakes; and they did not do his bidding. The fright inflicted upon masses of ignorant people attracted the attention of the scientists, and they have examined the prophecy with unusual care, hoping to diminish the force of the next moral earthquake among those who are moved to fear by ignorant prophecy.

This examination showed that Mr. Wiggins was inaccurate in all his facts, and that had his facts been good, his prophecy would have been absurdly improbable. It is not the first time that an effort has been made to foretell great convulsions and storms. The older tribe of weather prophets simply foretold, giving no reasons. The present race of storm-predicters kindly divulge their reasons. They have that "little learning" which "is a dangerous thing," and which until it is exposed passes for the best knowledge with the uneducated, because it employs large and frightful names to conjure with. This kind of bugaboo is peculiarly formidable to the uneducated, because it professes the wisdom of science. It is one of the uncatalogued crimes of the age to prophesy respecting the weather in such language as to alarm and distress the people.

The best corrective available is to set before the people the nature and extent of our foreknowledge of the weather. We are not able to foretell the weather beyond, say, thirty-six hours —scientifically. And we are able to do this only because a set of signal stations with telegraphic communication enables us to study the direction and force of storm currents. We have found out that the weather of one region is, so to speak, manufactured in other regions, and travels to the former in atmospheric waves. Of course we must wait until these waves are formed before we can foretell their journey. It may be that we shall attain to a wider knowledge and a longer forecast. It may come to pass that the general character of seasons shall be foretold months in advance. But it will never be possible to foretell precisely where and when great storms will rage. The factors are too numerous and the possible combinations too various.

As for earthquakes, the immediate causes are under the surface of the earth, and beyond our reach by any known methods of study. The remoter causes may be studied with profit. But to foretell an earthquake ten days in advance, will probably never be possible. Careful observations of the daily tremors of the earth are now made in Italy, and some general knowledge of a valuable kind may be expected as a fruit of a system of like observations stretching round the globe. But let it be remembered that a man who talks about earthquakes and the conjunction of the planets as related to each other, is using the methods of mediæval alchemy and not those of modern science.

Scientific weather observation is, indeed, in its infancy; and this fact may lead the unwary to a too ready belief in the weather prophet. "What," says the hopeful spirit of credulity, "may we not expect in the way of foreknowledge of storms? Why should we not know everything, and why may not this prophecy be a foretaste of wider knowledge?" The answer is that only quacks in science indulge in personal advertising on their own account, and that a scientific observer who has obtained some new clue to the weather puzzle would submit it to other men of science, and not, in any case, make use of it to advertise himself and alarm the people. The proceedings of Mr. Wiggins and others of his class are utterly unwarrantable—they are just a line less than criminal. They ought to be repressed by public condemnation.

WASHINGTON AS A POLITICAL CENTER.

Among important changes which the intelligent American is quick to note, is the shifting of centers of influence. For a score of years, for example, literary central force has been shifting from Boston to New York, and from New York to points farther westward. The results will probably be the development of many literary centers. At the end of the Civil War, Boston enjoyed something like a monopoly in this kind of power, but by the end of the century such power will be found to have been distributed to a score or more of cities.

In politics a more rapid dispersion has begun; Democratic centers of influence and action are shifting to Washington from several points. Albany is less felt. Gramercy Park, since the death of Mr. Tilden, has ceased to affect public life in any way, and a notable decline of the influence of Indianapolis, Columbus, and other state capitals in Democratic politics has occurred at the same time.

On the other side, Mr. Blaine has transferred his base to Augusta, and other Republican forces are rallying around other state capitals, and large cities. The Republican party was, during its long ascendency, gradually centered at Washington, and the Democratic party dispersed into the commanding points within states. The reverse process is now going on. The decline of Republican politics in Washington, in less than two years, is very remarkable, and shows what vast weights the presidency and its executive power have upon political life. The same lesson may be read in the history of Washington from 1861 to 1870. We note this matter simply as a fact of our public life. But it is worth studying from many points of view as an object lesson in social science.

We shall mention only one of these points for study.

Concentration is an advantage up to a certain point, and beyond that it is a danger. Just as success in any aggressive enterprise inspires opposition, and creates consolidation of hostile forces, so the growth of a political center tends to strengthen the opposition. It is something to have learned that, even in this age of centralization, only one party at a time can have its center at Washington, and that the dispersed influence of the other party may consolidate itself outside of Washington. The Democratic party did not suffer by banishment from the national capital more than a temporary loss of weight. It may suffer more in these days from the loss of force in state capitals. At all events that is what happened to the Republicans when Boston, Chicago, and New York become subordinate to Washington in political influence.

EDITOR'S NOTE-BOOK.

Chancellor Vincent and traveling party made a safe voyage of the Atlantic and are at present enjoying Great Britain. In a letter dated October 2, the Chancellor writes: "I am now in Edinburgh. We sailed September 4 from New York, reaching Liverpool September 12. We had a pleasant voyage, sailors would say, but were all glad to reach the shore. We had intended landing at Queenstown, but the fog was so thick that the 'lighter' could not come out to meet the steamer. We spent several days in Liverpool, then went to Chester, thence into Wales for a few days. A visit of a week to the Lake region followed Wales. From there we went to Glasgow, then here. After a week we shall go down to London. In November we go to the Continent." *Bon Voyage.*

The Chautauqua Literary and Scientific Circle is spreading into all parts of the world. One day last month these things came to us: a draft from St. Petersburg, Russia, for THE CHAUTAUQUAN; a letter from Scotland which was a request for C. L. S. C. circulars; an announcement of a circle at Tahlequah, Cherokee Nation; a letter from Australia saying, "we have organized a circle here"; and then Miss Kimball's message was laid on our table, telling of four thousand members already enrolled in the C. L. S. C. Class for 1890, and that cheering reports are coming in from every point of the compass.

Mr. W. A. Duncan, Superintendent and Secretary of the Chautauqua Assembly, has been lately appointed Field Superintendent of the Congregational Sunday-School and Publishing Society. This office has been newly created and has for its object the promotion of Sunday-School interests throughout the United States. In taking up the work which sought him as one eminently qualified for the position, Mr. Duncan will not relinquish his place as business manager of the Chautauqua Assembly. The same method which has enabled him heretofore to carry on systematically such a multiplicity of engagements, will teach him how to successfully add one more to the list.

A comic side relieves all horrors. The earthquake scare has developed a myriad of ridiculous theories for prevention and escape. One ingenious preventer proposes to bore holes through the earth's crust, numerous enough to give the destructive gases an outlet. A man who prefers to run away, suggests that each household add to its outfit a family balloon where refuge can be found at the first approach of the dangerous convulsions.

Remarkable changes are made in the number and character of the population of the United States, and without materially disturbing the equilibrium of anything or anybody. In the last year a population of over four hundred thousand, equal to that of the entire territory of Dakota, and one-fourth greater than that of the state of Rhode Island, has come into the United States. It has been assimilated, how or when no man can tell. That no grave disturbance of the national body results from this enormous annual increase is a strong proof of our solidity in spite of our periodic "labor-troubles."

A curious note-taker who had the good fortune to hear Mr. Gladstone chat at a dinner gives the topics of his talk. For versatility they rival Dr. Johnson.

"The latest excavations by Dr. Petrie in Egypt, with a picturesque detail or two about Babylonian and Egyptian domestic life; Alphonse Daudet's 'Sappho' giving a text for some vehement remarks about the degeneracy of French novelistic literature since the realists came into vogue; Norwegian fishing customs; Sarah Bernhardt and Mary Anderson as women and as actresses; anecdotes of Lord Brougham, Taglioni, Charles Dickens, Louis Philippe, Tom Sayers, Garibaldi; whether the flowing grace of the Greek chiton was preferable after all to the inviting prettiness of the small waist; the meanness of muzzling dogs; a mention of old china; an account of the Duc d'Aumale's bric-à-brac; a sketch of the beautiful palace of Chatillon; a chat about Madame de Sévigné; a regret that the English have not the faculty for making memoirs so attractive as the French; a correction, with personal testimony, of some of Greville's mistakes."

In the October issue of THE CHAUTAUQUAN, Miss Cleveland gave us her ideas of "Woman in the Home." Miss Frances Willard is soon to offset Miss Cleveland's article with one on "Man in the Home," a subject which she declares has never been discussed since the world began—in a magazine.

A pleasing example of international kindliness and sympathy was manifested by the English in establishing the earthquake fund. Greece has received a large sum, and ten thousand dollars has been sent to the Charleston sufferers. The Rothschilds contributed five hundred pounds sterling to the fund, and Mr. Henry Irving, the actor, one hundred pounds sterling. Not nationality, religion, or profession can stifle the consciousness of the brotherhood of man, which suffering awakens.

There is a growing conviction that the saloon is a great and fatal nuisance—and that it must go. It is not only the sapper of physical and moral virtue, but every saloon has become to some degree a center for exercising vicious political influence. Very few intelligent and virtuous people defend it or desire its continuance as an American institution. An immense majority of the people would vote it out of existence at once if they believed that such a vote would actually kill it. The people have as yet, refused to do this for the sole reason that the people doubt the efficacy of such a decree by ballot. This doubt is weakening; more and more, persons of conservative habit and temper are found voting to destroy the saloon. It is not at all improbable that within a few years the belief that the saloon can be voted out of existence will be strong enough to command a majority in the nation.

Sam Jones and Sam Small began their evangelistic work for the winter at Toronto on October 7. From there they go to Omaha. Coming back East they will spend some time in Boston and then cross the continent to San Francisco. After completing their work there, they will return to the East and proceed to Europe. They take with them in charge of the musical portion of the meetings, E. O. Excell, a singer of great power. Chautauquans will remember Prof. Excell's splendid bass voice in the concerts and devotional meetings.

The Chautauqua Town and Country Club reports that it is now fairly on the way toward the first graduation day, which will come in August of next year. The first class, called the Class of '87, will then graduate, and all members of the class who have performed the requisite work, made reports, read the books and passed the examinations, will receive their diplomas from the Chautauqua University. Up to this time nearly one thousand members have joined the Club. At present there are a little over seven hundred members in good standing in both classes. Over one thousand reports of work done have been sent in, and over five hundred letters have been received and answered at head-quarters, while over two hundred members have successfully passed the first examinations.

A peculiar kind of botanizing has been recently carried on in Egypt. It was the custom of the ancient Egyptians to cover a corpse with freshly-cut flowers and boughs, and in swathing the body to bind in the flowers. This formed a hermetic herbarium and it has been discovered that these flowers have been so pre-

served that by putting them in warm water they are completely restored. "The colors of the flowers are still present, even the most evanescent, such as the violet of the larkspur and knapweed, and the scarlet of the poppy; the chlorophyl remains in the leaves, and the sugar in the pulp of the raisins." The botanist who is pursuing these investigations, Dr. Schweinfurth, has determined about sixty species and declares that in nearly every case they are identical with those of the same family at the present day.

An English author, come over to study America and her manners, and to lecture to American audiences, has become one of the winter features of the literary life of the cities. The latest arrival is Mr. Justin McCarthy, M. P., vice-president of the Irish National League of Great Britain. Mr. McCarthy will have a large hearing. His "History of Our Own Times," "Devil's Chain," "Dear Lady Disdain," as well as his graphic and forcible newspaper articles have won him many admirers in America.

On September 14, seventeen persons lost their lives by a collision on the Nickel Plate road at Silver Creek, New York, between an excursion train of eleven cars and a freight train; cause, disobedience of orders; excuse, forgetfulness. In Europe when a railway accident occurs some one suffers for it. Forgetfulness is no excuse, for forgetfulness in such cases is crime as much as is the loss of self-control which permits a man to strike down his fellow. As for disobeying orders where such consequences are involved, it can only be classed as murder in the first degree.

The journeymen plumbers of New York City have resolved that no boys who have learned plumbing at the Trade School shall be employed in that city. The working man hates monopoly; but is this anything else? There is a universal demand for shorter hours that there may be opportunity to gain skill for better work. Why restrict the opportunities they do have for intelligence coming into the trade? Our friends, the workmen, if they would overcome the evils to which they charge their ills, must select other weapons.

J. Esten Cooke, the author, died at his home near Boyce, Virginia, September 27. During the Civil War he fought on the confederate side. His articles written since in relation to the war show a very generous spirit. His history of Virginia has been adopted as a text-book in that state, and his "Annals of the War" were published in the *Philadelphia Times*. He has written about twenty-five books, among them "A Life of Stonewall Jackson," "Stories of the Old Dominion," and "Virginia Bohemians." The scenes of his writings are laid almost wholly in Virginia, and describe the life, customs, and history of the people among whom he had always lived.

Many and strange are the methods the Western settlers adopt for money making. In Seattle, Washington Territory, there is a man who in the early days preëmpted a site on the water front of the town. The law required that he have a house. Near by on the beach was the battered hull of a vessel. He drew up the remnant to his lot and started a second "Rudder Grange." By and by sites on the shore were in demand, and the shrewd "squatter" sold his lot for two hundred fifty thousand dollars.

We have always advocated the theory that the shortest and surest way into English Grammar is *via* Latin. We are glad to have so good support as Mr. J. R. Kendricks' experience. "After a year or so at Hamilton . . . dropping again into the school of my childhood, and placed in an English grammar class, made up of boys and girls much my seniors, who had been studying this subject for years, I found to my surprise that I was easily the top scholar. I could 'out-parse' the best of them, showing something like a philosophical knowledge of my mother tongue, though I had hardly ever opened an English grammar. Of course my little acquaintance with Latin explained it all."

It is satisfactory to know that at least one English traveler is willing to view America from another than the conventional Dickenesque standpoint. Lord Brabazon, writing to *Time* says that "the America of Dickens and the America of to-day, are two widely different countries. It is the difference between the self-conceited, sensitive, half-formed hobbledehoy of sixteen, and the sober, experienced, sensible, full-grown man of thirty."

As melodramatic a turn to an argument as we remember ever to have heard, is made in a recent magazine article discussing the question of fair wages for women. The chivalric writer turns from his subject and declares in closing: "It is not reform to say, 'When woman is burned at the stake of competitive toil, a fair price must be paid for her tears, her bloody sweat of slowly dying agony, and her ashes.' It is only reform to say, 'Woman shall not be burned at the stake of competitive toil.'" If the writer will take the trouble to learn the sentiment on this subject among the women themselves, he will find the tears shed and the agony endured are because "competitive toil" has not opened wide enough to give them a place, and in the majority of cases it is all that prevents the workers turning to ashes.

The following practical and severe physical examination is given before any appointments are made to the Fire Department of New York City: — Among the special tests the applicants are required to climb a long post reaching to the ceiling, using their arms, hands, and legs the best they can—an exercise in which the fellows who have had the advantage of nutting as a sport in boyhood notably excel. Then the men are asked to walk the edge of a plank some eighteen inches from the floor, and are given three trials, account being taken of their quickness and security. Then they must pass along suspended from a horizontal ladder, taking the rungs with their hands. Then one of the men lies down inert, and each applicant is required to pick him up and carry him a certain distance in a manner which is carefully explained to them. They are also asked to lift dumb-bells or weights of from fifty to two hundred fifty pounds, in prescribed positions, testing the strength of the arms, of the legs, and of the back and trunk, and to raise their own weight slowly by one foot placed at a height a little above that of an ordinary chair.

In 1882 the Legislature of Vermont provided that the public Schools should teach elementary physiology and hygiene giving special prominence to the effects of alcoholic drinks upon the human system. Eighteen states have since followed her example, and last June, Congress provided for similar instruction in the military and naval schools, in the common schools in the territories and in the District of Columbia, and in all Indian and colored schools in the territories.

The president of the American Association for the Advancement of Science has collected a surprising list of speculations concerning meteors. As November is meteor-month the summary may be interesting to our readers.

They come from the moon; the earth's volcanoes; the sun; Jupiter and the other planets; the comets; the nebulous mass; the fixed stars; the depth of space. They supply the sun with his radiant energy; give the moon her accelerated motion; break in pieces heavenly bodies; throw up the mountains on the moon; . make large gifts to our geologic strata; cause the auroras; give regular and irregular changes to our weather. They are satellites of the earth; travel in streams, and in groups, and in isolated orbits about the sun; travel in groups and singly through stellar spaces; reflect the zodiacal light; constitute the tails of comets; the solar corona is due to them; the long coronal rays are meteor-streams seen edgewise.

C. L. S. C. NOTES ON REQUIRED READINGS FOR NOVEMBER.

WALKS AND TALKS IN THE GEOLOGICAL FIELD.

P. 156. "Ya-koots'kī." Inhabitants of Yakutsk.

P. 157. "Dr. Bunge," Alexander. (1803——). A Russian botanist.

P. 158. "Dr. Fraas," Karl Nikolas. (1810–1875). A German botanist.

"Professor Ward," Henry Augustus. (1834——). An American scientist, celebrated for his great collections of objects of natural history, and for his artificial reproductions of rare fossil specimens.

P. 159. "Meg-a-the'ri-um." For illustration see "Webster's Dictionary." "Myl'o-don." "Scel-i-do-the'ri-um."

"E-den'tates." Animals lacking the front teeth and canines.

"Pampean Formation." The formation, the surface of which is now occupied by the great Pampean plains, or Pampas.

P. 160. "Waterhouse Hawkins." (1807——). An English scientist and artist, noted for his skill in delineating animals and in restoring fossil remains.

P. 161. Ef-fo'di-ent." Accustomed to dig.

P. 163. "Per-sep'o-lis." One of the old capitals of Persia. It was destroyed by Alexander the Great, 331 B. C. Traces of some of the great palaces are still to be found among the ruins; four of them have been identified as the homes of Cyrus, Darius, Xerxes, and Artaxerxes Ochus.

"Car'a-pace." The thick shell which covers the back of the turtle.

P. 164. "Cheyenne," Shā-yen'.

P. 165. Professor Richard Owen." (1804——). An eminent English scientist who has published many works on natural history. He exhibited great skill in reconstructing several extinct animals. Baron Von Humboldt considered him the greatest anatomist of his time.

P. 166. "Professor Marsh," Othniel Charles. (1831——). A distinguished American palæontologist. He was appointed professor of palæontology in Yale College in 1866. He has published many scientific works, and is renowned for the great number of extinct vertebrate animals discovered by him in the Rocky Mountain region.

"Professor Cope," Edward Drinker. (1840——). A great American naturalist, who has given special attention to comparative anatomy, and has written much upon the subject. He has discovered and described more than a thousand species of fossil vertebrates. He was professor of natural science in Harvard College from 1864 to 1867, and was palæontologist in several United States surveys. In 1884 he was made curator of the National Museum in Washington.

P. 167. "Bron-to-the'ri-um." "Di-noc'e-ras." "Li-noc'e-ras."

P. 168. "Cuvier," George Chretien Leopold Frederick Dagobert, Baron. (1769-1832). A German philosopher, statesman, author, and one of the greatest of modern geologists. In 1808 he was appointed councilor to the Imperial University and for several succeeding years presided over commissions appointed to visit and organize academies and colleges in Italy, Holland, and other countries. He gives it as his belief that man has lived on this earth only about five thousand or six thousand years; that no vestiges of human remains have ever been found among fossils. His work called "Animal Kingdom" at once took highest rank among the books of its kind, and is considered as the basis of zoölogical studies, in Europe. He is looked upon as the founder of the science of comparative anatomy. In the universal aptitude and excellence of his attainments he has been compared to Aristotle.

P. 170. "Iron py-rī'tēs." A combination of sulphur with iron.

P. 171. "Ru-dis'tes."

P. 173. "Many distinct traces of coal-plants lie bedded" etc. The most remarkable instance of trees still standing in the coal districts, is on the southern shore of the Bay of Fundy in Nova Scotia, where "the cliffs which are about two hundred feet high, are composed of carboniferous strata consisting of coal, clay, grit, and shale, in which numerous erect trees are seen on the face of the cliff. There are ten rows, one above another, indicating repeated subsidences of the land, so as to allow of the growth of ten successive forests."

P. 174. "Cy'cads." A genus of trees intermediate between the palms and ferns.

P. 175. "Coal measures of Nova Scotia." Nova Scotia ranks second among the coal producing countries of the globe. It is estimated that in the United States there are 192,000 square miles of coal, and in Nova Scotia 18,000 square miles, while in Great Britian, which comes third in order, there are 11,900 square miles.

"Helix." Snail.

P. 177. "Salamander." A genus of reptiles having some affinities with lizards but more with frogs. The story that it is able to endure fire is a myth. According to very ancient superstition, it sought the very hottest fire, but quenched it with the intense frigidity of its body. Pliny relates that he put the superstition to the test once, but that the animal was reduced to powder.

P. 180. "Crenulated." Having the edge cut into very small scallops.

P. 181. "Dissepiments." Separating tissues.

"Brachiopods." Animals of the sub-kingdom, Mollusca. The word is from the two Greek words meaning arm and foot.

P. 183. "Dr. Newberry," John Strong, M. D., LL.D. (1822——). He was appointed United States geologist in 1855 and held the position five years; was also state geologist of Ohio for ten years, 1869–79. He has written many geological and palæontological "Reports."

P. 184. "Placoderms." Bony-plated fishes of the Devonian age.

P. 185. "Mab." A queen of the fairies. Titania was the wife of Oberon, the king of the fairies, but Mab also was often addressed as queen. It was she whose duty it was to send dreams to mortals. Thus Shakspere makes Romeo say "I dreamed a dream to-night," and Mercutio reply, "O, then I see queen Mab hath been with you;" and in the same play, "Romeo and Juliet", act I, scene IV., an excellent description is given of "Mistress Mab." The following is from Walter Scott's "Antiquary:" "I have a friend who is peculiarly favored with the visits of Queen Mab." Ben Jonson also alludes to her in his "Satyr;" Randolph, in "Amytas;" Drayton, in "Nymphidea;" and Milton, in "L'Allegro."

"Ilios." Troy.

P. 191. "Professor A. S. Packard." (1839——). An American naturalist. He was in the army as assistant surgeon for two years; lectured on natural history in several schools; accepted the chair of zoölogy and geology in Brown University in 1878. For a number of years he was a member of the United States Entomological Commission, and of various geological surveys. He has published a number of books pertaining to natural history.

P. 192. "The Pictured Rocks." A perpendicular wall of sand-stone many miles in length, and from two hundred to three hundred feet high, follows the shore of Lake Superior in School-

craft county, Michigan. The action of the waves upon the rock produces remarkable effects. The whole expanse presents the appearance of a great picture gallery of curious and fantastic drawings.

P. 198. "Sir William Logan." (1797–1875). An eminent geologist, who in 1842 was appointed director of a geological survey of Canada.

"The Alexandrian Library." The largest library in existence before the invention of printing. It was founded about 273 B. C., by Ptolemy Philadelphus, King of Egypt. It contained the most celebrated literary works collected with great care and expense from many nations. It was partly burned in 395 A. D., by fanatical Christians; and about 640 A. D. it was entirely destroyed. A story of doubtful authenticity, is that after the Arabs had conquered the country, the caliph, Omar, ordered the library to be burned, saying, "If these writings of the Greeks agree with the Book of God (the Koran), they are useless and need not be preserved; if they disagree, they are pernicious and ought to be destroyed." The story further says that they were used to heat the public baths of the city for which purpose they were sufficient for six months."

"The Mystery of Edwin Drood." This story was to have been published in twelve monthly parts, but one-third of the work only, had been issued at the time of Mr. Dickens' death. One-third more was left in manuscript; the remaining half of the story was left to be written. "It was rumored that the tale would be finished by Wilkie Collins, until Messrs. Chapman and Hall announced in a letter to *The Times*, that no other writer could be permitted by them to complete it. Still a sequel has been published in the United States, without their authorization, or that of Mr. Dickens' family, entitled "John Jasper's Secret." " —*Dickens' Dictionary.* The work is the joint production of several writers, led by Mr. Henry Morford.

P. 209. Biela's comet. Wilhelm Von Biela, Baron, (1782–1856), a German soldier and astronomer discovered, in 1826, the periodical comet, visible every six and three-fourth years, which was named after him. On January 12, 1846, from the Washington Observatory it was seen that it had divided into two parts, which pursued their way side by side. In 1852, both comets again came into view; but neither of them have been seen since. It has been thought that it might have been separated into numerous parts which have been visible from the earth as meteors. See "Recreations in Astronomy," by H. W. Warren, D.D., page 129.

P. 212. "Professor J. P. Langley," Ph.D., LL.D. (1834——). An American astronomer, educated at Harvard University, and for some years past, the director of the observatory at Allegheny City, Pa. He invented an instrument for measuring small quantities of radiant energy, called a bolometer, and has written largely on astronomical subjects.

P. 222. "Battle of the Catalaunian Plains." The battle between the Romans and the Huns, occurred in 451 A. D., upon the spot where Chalons-sur-Marne is now situated, in France. It was one of the severest battles known in the history of Europe.

P. 224. "Lockyer," Joseph Norman, F. R. S. (1836——). An English astronomer and physicist.

P. 225. "Glauber's Salt." The man whose name was given to this salt was a German chemist who boasted of wonderful secrets. He discovered the natural salt; and first produced the artificial salt alluded to. He lived from 1604 to 1668. This natural salt is usually found deposited around hot springs.

P. 232. "Professor R. S. Ball," F. R. S. (1840——). An Irish astronomer.

P. 240. "Mĕ'nēs." The first king of Egypt; he lived about 2,000 B. C.

P. 242. "Aurochs," owr'ox. An animal of the ox family which would have been extinct but for the protection afforded it in the forests belonging to the Czar. It is a cotemporary of the mammoth.

P. 254. "Pen-ta-dac'tyl." Having five fingers or toes.

P. 257. "Leidy," Joseph, M. D., LL.D., lī'de. (1823——). A great American naturalist, who is at the present time professor of anatomy in the University of Pennsylvania, Philadelphia; the author of numerous scientific works.

P. 259. "Occipital Condyls." Protuberances on the back of the head.

P. 260. "Scapula," shoulder-blade.

"Cor'a-coid." A short, sharp process of the scapula, shaped like a crow's beak.

P. 261. "Carl Vogt." (1817——). A German naturalist and physiologist. He went with Agassiz on his expedition to the glaciers. Among his works are "Pictures of Animal Life," "Outlines of Geology;" and "Lectures on Man."

P. 262. "Ischiac." Pertaining to the hip bone.

"Astragalus." The ankle bone.

"Metacarpal." Belonging to that part of the hand between the wrist and the fingers.

"Tibia." The larger of the two bones in the lower part of the leg, the fibula being the smaller.

P. 263. "Ulna." The larger of the bones in the lower part of the arm, the radius being the smaller

P. 268. "Orographic." Pertaining to mountains.

P. 276. "Croll," Dr. James. An eminent living Scotch astronomer. In the *Philosophical Magazine* for July, 1878, there is an article by him on the origin of nebulæ. His recent calculations of the glacial period are of special interest, as they bear upon the question of man's antiquity.

P. 279. "Ramsay," Sir Andrew Crombie. (1814—). A Scotch geologist who has written several works.

P. 281. "Professor J. D. Whitney." (1819—). An American scientist, professor of practical geology in Harvard College, and state geologist of California.

P. 282. "Boyd Dawkins." (1838—). A British geologist; author of "Cave-Hunting," and "Early Man in Britain."

"Dr. C. C. Abbott." (1843—). An American naturalist; author of "Rambles of a Naturalist."

"Mr. H. C. Lewis." An American anthropologist, who has made a special study of the relics found in the Trenton gravel-beds, and who proposes to call the period of their formation the Esquimau period.

P. 288. "Professor Newcomb," Simon, LL.D. (1834—). An American astronomer; a professor in the United States navy and superintendent of the "Nautical Almanac."

P. 289. "Sir William Thomson." (1824—). An Irish physicist who has made many important discoveries and observations in physics and electricity.

P. 291. "Lyell," Sir Charles. (1797–1875). A distinguished British geologist, the author of many works, among which the "Antiquity of Man" is, perhaps, best known.

"Hall," James. (1811—). An American geologist.

"Desor," Edouard. (1811–1882). A Swiss geologist.

P. 292. "Mr. Jules Marcou." (1824—). A French geologist.

"Humphreys," Andrew A. (1810–1883). An American general who commanded a division at the battle of Gettysburg. He was appointed chief of engineers of the army in 1866.

SKETCHES FROM ENGLISH HISTORY.

P. 25. "Celts." A people who in prehistoric times crossed into Europe and made their way to the British Isles. This was probably the first migration made by any of the great Aryan nation.

"The age of the Antonines." This age covers the period extending from the accession of Nerva, 96 A. D., to the death of Aurelius Antoninus, 180.

P. 26. "Forest of Dean." A large tract of country lying west of the Severn. It is now a royal forest of Gloucester, containing about twenty-two thousand acres, of which one-half is set aside for navy timber.

P. 27. "Cærleon," ker-lē'on. A town of England.

"Se-vē'rus," Lucius Septimius. (146–211).

"Picts." An ancient people of Scotland, who probably derived the name from their habit of painting their bodies. They were conquered in 843 by the Scots, a people from the center of Ireland. From the third to the tenth century the whole of Ireland went by the name of Scotia.

P. 28. "Punkahs." Machines for fanning rooms, "consisting of a movable frame covered with canvas, and suspended from the ceiling." They are kept in motion by pulling cords.

P. 29. "Zulu." An inhabitant of Zululand in southern Africa.

"Maori." A primitive inhabitant of New Zealand.

P. 30. "Goths." An extinct Germanic race first mentioned as dwelling on the coasts of the Baltic during the fourth century B.C., and disappearing from history in the eighth century, A. D.

"Angles." An ancient migratory German race which after settling in great numbers in Denmark, kept crossing over into Britain, to a part of which country they finally gave their name, Angle-land, England.

"Saxons." A tribe which lived in the northern part of Germany. They are supposed to have taken their name from the rude weapons with which they fought, which they called *sahs*.

"Jutes." A barbarian tribe from Denmark.

P. 31. "Low German." The dialects spoken in the northern, or lower, part of Germany.

P. 36. "Gregory the Great." (540–604). The first of sixteen popes who bore this name.

P. 41. "Lindisfarne." Now called Holy Island; a few miles south of Berwick, near the Farne Islands.

P. 42. "The Tor." The name of a granite hill.

"Beda." Written also Bede, and called the Venerable. (672–735). A Saxon ecclesiastic, the first English historian. His "Ecclesiastical History of the English Nation" is the most trustworthy account of those early times.

P. 43. "Rhines." Water courses or ditches.

P. 48. "Twelfth-night." A festival founded in the early Christian church, celebrated on the twelfth night after Christmas. It is more widely known under the name Epiphany, derived from two Greek words meaning "before" and "to appear." It was held to commemorate the visit of the wise men to the Divine Child. This event was held to have occurred on January 6, which was the date also on which Christ was baptized, and that on which he performed the first miracle, the changing the water into wine. One of the customs at the festival, in memory of this miracle, was to bring water from the springs just at midnight, which, it was said, kept fresh and sweet during the whole year.

P. 55. "Thane." A title in early British history, corresponding to that of baron at the present time.

P. 64. "Nicholas Breakspear." Pope Adrian IV.

P. 79. "William of Malmesbury." (About 1095–1143). An English historian. His "History of the Kings of England" and "Modern History" have been reprinted in Bohn's "Antiquarian Library."

P. 81. "The Vexin." A province on the borders of France and Normandy. It had been given by Henry I. of France to Robert of Normandy, and afterward had been reclaimed by France. It was while attempting to regain this territory that William the Norman lost his life. He burned Mantes, and his horse having stepped on some burning embers, threw him so violently that he died from his injuries.

P. 82. "Cotentin." A district of France in the old province of Normandy. It forms the peninsular portion of the department La Manche. Its northernmost point is Cape la Hague. The hilly range which crosses La Manche from north to south is also known by the name Cotentin.

P. 86. "Plantagenet," plan-taj'e-net. The word means in French, "broom-plant." The earl of Anjou, the founder of this house, on a pilgrimage to the Holy Land scourged himself with the branches of this plant as a symbol of humility; and the name was ever after proudly worn by his descendants.

P. 96. "Scutage." A tax levied upon all lands held by knights.

P. 100. "Sumpter-mules." Mules for carrying packs or burdens.

P. 102. "Cinque-ports." Originally a group of five towns, Hastings, Romney, Hythe, Dover, and Sandwich, situated on the southeast coast of England; but to these were added the towns of Winchelsea and Rye. "The Cinque Ports owe their existence as a corporate body to the fact that in our early history there was no standing navy. Hence, whenever invasion was threatened or contemplated it was necessary to rely mainly on the services of the seaboard towns. . . . The Cinque Ports continued to be the main strength of our navy till the time of Henry VII. The charters were surrendered to the crown in 1685." "Dictionary of English History."

P. 113. "Albigenses." A general name applied to different religious sects in the twelfth and thirteenth centuries, who had left the Catholic church.

P. 115. "Roger Bacon." (1214–1294?). An English scholar, who was exposed to severe treatment on account of his knowledge of science. He was accused of dealing in magic and was exiled to Paris for several years. After his return he made an attack in writing on the monks and clergy for which he was imprisoned fourteen years. By some authorities it is stated that he died in prison. Among his numerous literary works the "Opus Majus" is chief.

"Duns Scotus." A learned theologian of the thirteenth century. The controversies between him and Thomas Aquinas on various religious doctrines gave rise to two schools of disciples, the Scotists and the Thomists.

"Ockham," or Occam, William of. (About 1270–1347). A scholastic philosopher.

"Matthew Paris." Or Matthew of Paris, so called because he studied in that city. (About 1195–1259). An English historian.

P. 126. "Feast of St. John the Baptist." An anniversary day of joy held in commemoration of the nativity of John the Baptist.

P. 127. "Lo-chā'ber-axes." Long sharp-pointed poles with axes fastened to the upper end."

"Claymores." Large two-handed swords.

P. 135. "Hobby." A strong active horse of middle size, originally from Ireland.

P. 136. "St. Denis." The first bishop of Paris. He belonged to a company of missionaries who in the third century went from Rome to Gaul (now France) where they endured much suffering at the hands of the pagans. During the persecution under Aurelian, he was beheaded. It was a popular belief that he was accustomed to walk about after his death with his head in his hands. This story probably took its rise from his representation in this manner in several old paintings illustrative of his death. He became the patron saint of France, and his festival is kept on October 9.

P. 140. "Cathay." China, or rather Tartary.

P. 141. "Petrarch," Francesco. (1304–1374). A great Italian poet. "Laura" was the object of his admiration and love through his whole life, about whom nothing definite is known. His own frequent allusions to her are all of such a character as to entirely conceal her history.

"Boccaccio," Giovanni, jovanni bok-kat'cho. (1313–1375). An Italian novelist.

P. 145. "John of Gaunt." (1340–1399). Duke of Lancaster; the fourth son of Edward III. He married the daughter of Henry Plantagenet, and she bore him a son who became Henry IV., the first king of England of the Lancaster house.

"Courtney," William. Written also Courtenay. (1327–1396). An archbishop of Canterbury who opposed John of Gaunt and Wycliff, and yet was strongly anti-papal.

SUGGESTIONS CONCERNING ENGLISH HISTORY.

Some short work should be used in connection with the text-book in the C. L. S. C. course to fill in the spaces between the sketches and form a continuous panoramic view in the minds of

the readers. For this use Green's "History of the English People" is the best.

Chautauqua text-book No. 4, by J. H. Vincent, has not been placed on the required course this year, but it will be found of great value to the members of the C. L. S. C. in the study of English History. This text-book is published by Phillips & Hunt of New York. Price 10c.

The following jingle committed to memory will be found of great value.

First William the Norman, then William his son;
Henry, Stephen and Henry, then Richard and John;
Henry the Third, Edwards, one, two, and three;
And again after Richard, three Henrys we see.
Fourth Edward; third Richard, if rightly I guess;
Two Henrys; sixth Edward; Queen Mary, Queen Bess;
Then Jamie the Scotchman, then Charles whom they slew,
And again, after Cromwell, another Charles, too;
Then James the Second ascended the throne,
And William and Mary together came on,
After Anne, George's four and King William had passed
God sent us Victoria. May she long be the last!

NOTES ON REQUIRED READING IN "THE CHAUTAUQUAN."

STUDIES OF MOUNTAINS.

1. "Palisades of the Hudson." A range of trap rock rising perpendicularly from the water to a height of from three hundred to five hundred feet, extending from the New Jersey boundary toward New York Bay for a distance of fifteen miles.

2. "Dalles of the Columbia." *Dalle*, Fr., *flag-stone*. Forty-five miles above the cascades of the Columbia River, steep walls of basaltic rock rise on either side forming a chasm only fifty-eight yards wide. The water rushes with such violence through this narrow passage that it is probable the secondary meaning of *dalle*, *spout*, may have given it the name.

3. "Fingal's Cave." A cavern on the island of Staffa, off the west coast of Scotland, probably named for Fingal, the legendary hero of Gaelic poetry. It is formed of basaltic pillars supported upon a lava-like mass, whose eruption belongs to the Miocene period. The cave is two hundred twenty-seven feet long, and at its entrance, forty-two feet wide. The main arch is like the aisles of a great Gothic church. The stalactites of a variety of tints between the pillars, and the perfection of the stupendous columnar side walls, form one of the most picturesque pieces of natural architecture in the world. This is but one of several remarkable caves on the same island.

4. "Giant's Causeway." A promontory of columnar basalt on the north coast of Ireland. The columns terminating at a nearly uniform height, present a tolerably smooth area inclining to the water. They are mostly hexagonal prisms, but are also found of five, seven, eight, and nine sides. They are jointed into short, irregular lengths, perfectly fitted by a convex end entering the concavity of the adjoining piece.

5. "Tyndall" John, LL. D., F. R. S., (1820 ——). A distinguished physicist born in Ireland. "He has done more than any other English writer to popularize the great scientific truth of the mutual convertibility of heat and motion." In 1872 he visited the United States on a lecturing tour, the profits of which (more than fifteen thousand dollars) he placed in the hands of an American committee as a fund "in aid of students who devote themselves to original research." His address before the British Association in Belfast, 1874, brought about a theological discussion regarding the evolution theory, of which he had been an advocate. His later investigations have been principally upon acoustics. Among his books are "Heat as a Mode of Motion," "Fragments of Science for Unscientific People," "Forms of Water in Clouds and Rivers, Ice and Glaciers," and "Hours of Exercise in the Alps."

6. In Fahrenheit's thermometer the scale is divided into 180 degrees between the freezing and boiling points of water. In the Centigrade thermometer, which is more generally used for scientific purposes, the same interval is divided into 100 equal parts. The following formula shows how degrees may be reduced from one scale to the other: Fahrenheit to Centigrade, $\frac{5}{9}$ (F.°—32)=C°. Centigrade to Fahrenheit $\frac{9}{5}$ C.°+32=F.°

7. Krakatoa. This volcano lies in the strait between Sumatra and Java. The eruption which occurred in August, 1883, exceeded in violence anything of the kind known to man. The explosion lasted forty-eight hours, and was audible at points four thousand miles distant. "The great atmospheric waves caused by the successive explosions" says Verbeek, "rolled at least three times around the earth, marking their passage by sensible movements of the barometer. The vapor ejected, mingled with fine dust from the volcano, was swept by the winds of the upper air, to all parts of the earth, and for more than two years caused at sunset and sunrise the red skies which were so much remarked. The great wave of the sea, which rose to more than a hundred feet near the volcano, was felt along the shores of the Atlantic and Pacific Oceans."

8. "For a complete account of volcanoes, modern and ancient, in the United States, see Dutton, 2nd Annual Report U. S. Geological Survey."—*Ernest Ingersoll.*

THE RAILWAY INDUSTRY.

1. "Hectoliter." In dry measure equal to about two and five-sixths Winchester bushels.

2. "Guilder." A Dutch coin about thirty-eight cents in value.

3. "Pascal." (1623–1662). A celebrated French philosopher and mathematician. He established the theory of atmospheric pressure, and exploded the ancient error that nature abhors a vacuum. His celebrated "Provincial Letters", produced in 1656, are said by competent French critics, including Voltaire and D'Alembert, to have contributed more than any other composition to form and polish the French language. "The Thoughts of Pascal", collected and published after his death, are ranked by Hallam above "Provincial Letters."

4. "Macadam," John Loudon. (1756–1836). A Scottish surveyor, who traveled much of his time at his own expense through Great Britain, examining the condition of the roads. In 1811 the House of Commons adopted his system of road-making, and appointed him trustee of roads in Bristol district where he began *macadamizing* the highways. Before his death nearly every route in Great Britain was a monument of his success.

5. "Telford," Thomas. (1757–1834). This eminent Scottish engineer has left many monuments of his skill. He constructed an iron bridge over the Severn, the Ellesmere Canal, the aqueduct bridge over the valley of the Dee, the Caledonian Ship-Canal, and the beautiful suspension railway bridge over Menai Strait.

6. "Stephenson," George. (1781–1848). This English inventor constructed the first locomotive to move upon a common road. After many experiments he introduced the steam-blast into his second locomotive, built in 1815. When the first railway was built, it was thought that safety and speed could best be secured by stationary engines placed at short intervals along the line. Stephenson persuaded the directors of this road to offer a prize for the best locomotive adapted to their use, and at the public trial the £500 were awarded to him. For the next fifteen years he was engaged in the manufacture of locomotives, constantly studying how to improve them. He is called "the father of railways". In 1862 a colossal bronze statue was erected in his honor at Newcastle-upon-Tyne.

7. "Fulton," Robert. (1765–1815). A celebrated American inventor. He studied painting in London for several years under Benjamin West, but his mechanical genius impelled him to

abandon painting and take up the profession of civil engineer. He invented a machine for spinning flax and another for making ropes, and a sub-marine boat for naval warfare. In 1806 he returned to the United States where, in co-operation with Robert Livingston, he perfected the great discovery of steam navigation. His first boat made regular trips between New York and Albany. The rate of speed was five miles an hour, but by improved machinery this was soon increased. Several larger boats were built under his direction. He spent large sums of money in this way though he received nothing for his patent. He died in the midst of the triumph and height of his prosperity. (See Smile's "Lives of the Engineers".)

8. "Madame de Sévigné." (1626–1696). The letters by which this woman achieved her literary reputation, were written to her daughter who had married and moved to another part of France. This correspondence, not published until after the death of the author, is of high literary merit, and great historical interest.

From a letter written by Professor Adams we quote the following :—

"I know of nothing that would better show the method of travel at the time than two quotations given in Miss Thackeray's sketches of Madame de Sévigné. They are found in one of the books edited by Mrs. Oliphant, "Foreign Classics for English Readers." I also enclose a copy of an extract from "Recollections of Samuel Breek" describing a railway journey from Boston to Providence in 1835. It will show the leveling tendency of railroads."

The quotations from Madame de Sévigné are given first.

"I start on Monday. I think you must want to know my equipage in order to see me pass by, as I watched M. Busche go by. I am traveling with two carriages. I have seven carriage horses, one baggage horse to carry my bed, and three or four outriders. I shall be in my own open coach drawn by two beautiful horses. The Abbé will be sometimes with me. In the other carriage go my son, La Mousse, and Héléne. To this carriage there will be four horses, with a postilion."

"I was already dressed at eight o'clock. I had drunk my coffee, heard the mass, made all my farewells. The luggage was loaded; the bells of the mules were reminding me that it was time to mount into the litter. My room was full of people: they were entreating me not to start for several days. The rain had been falling steadily since yesterday : it had rained continuously, and at this very moment it is pouring more heavily than usual. I bravely resist all these persuasions, honorably keeping to the resolution I had taken, and which I announced to you by post yesterday, assuring you that I should arrive on Thursday, when suddenly M. de Grignan, in an omelette-colored dressing gown, appears, and speaks to me so seriously of the temerity of my enterprise,—assuring me that my muleteer would not be able to follow my litter, that my mules would be falling into the ditches, that my people would be drenched and unable to assist me,—that in one moment I changed my opinion, and yielded entirely to his remonstrances."

"This morning at nine o'clock I took passage in a railroad car (from Boston) for Providence. Five or six other cars were attached to the locomotive, and uglier boxes I do not wish to travel in. They were made to stow away some thirty human beings, who sit cheek by jowl as best they can. Two poor fellows, who were not much in the habit of making their toilet, squeezed me into a corner, while the hot sun drew from their garments a villainous compound of smells made up of salt fish, tar, and molasses. By and by, just twelve,—only twelve—bouncing factory girls were introduced, who were going on a party of pleasure to Newport. 'Make room for the ladies!' bawled out the superintendent. 'Come, gentlemen, jump up on the top; plenty of room there.' 'I'm afraid of the bridge knocking me brains out,' said a passenger. Some made one excuse and some another. For my part, I flatly told him that since I had belonged to the corps of Silver Grays I had lost my gallantry, and did not intend to move. The whole twelve were, however, introduced, and soon made themselves at home, sucking lemons and eating green apples."

WOMAN'S WORK IN MORAL REFORM.

1. "Howard," John. (1726–1790). This English philanthropist became while young the possessor of an independent fortune. When in 1756 he embarked for Lisbon, desiring help in relieving the miseries caused by the great earthquake, he was taken by a French privateer, and detained in prison long enough to impress him with the necessity of a reform in the treatment of prisoners. He afterward visited many of the English jails, and witnessed with pain the cruelties and abuse to which their inmates were subjected. He induced the House of Commons to begin a reform in prison discipline, and devoted the rest of his life heroically and successfully to relieving the sick and the suffering.

2. "St. Paul's Cathedral." Sir Christopher Wren in 1675 laid the foundation of the great structure which now occupies the summit of Ludgate Hill, London. It was not completed until 1710. This is the most important ecclesiastical building in the style of the Renaissance which exists in England. Here are the monuments of many of the greatest English artists, among them Reynolds, Lawrence, and Turner. Admiral Nelson, the Duke of Wellington, and Sir John Moore are among the soldiers whose monuments will be found here, and the noted authors include Hallam and Samuel Johnson.

3. "Davy Crockett's Coon." Colonel Crockett, one of the early settlers of the colonies, was noted for his skill as a marksman. The story goes that one day he leveled his gun at a raccoon in a tree, when the animal knowing the colonel's prowess, suddenly cried out, "Hallo, there! Air you Davy Crockett? If you air I'll just come down, for I know I'm a gone coon."

4. "Boffin's Bower." Probably taken from the name given by Mr. Boffin, an eccentric character in Dickens' "Our Mutual Friend," to the property which came into his possession.

QUESTIONS AND ANSWERS.

SEVENTY QUESTIONS AND ANSWERS ON WINCHELL'S "WALKS AND TALKS IN THE GEOLOGICAL FIELD."

1. Q. What is peculiar respecting fossils of some monster animals? A. They abound in localities where, for thousands of years, no such animals have lived.

2. Q. How far north are remains of the elephant and mastodon found? A. In northern Siberia.

3. Q. What other mammoth animals lived before man? A. The mylodon, megatherium, and other giant leaf-eaters.

4. Q. Of what geological formation are the "American Bad-Lands" west of the Missouri? A. The upper Tertiary.

5. Q. For what is that region remarkable? A. For a vast accumulation of fossils—teeth and bones of animals long extinct.

6. Q. Were these the relics of water or air-breathing animals? A. Of both.

7. Q. What do marine fossils, so widely distributed, prove? A. That portions of the great western valley were once under the gulf.

8. Q. What is chalk? A. A compound of calcium and carbonic acid.

9. Q. What supplied these materials? A. Principally microscopic shells, deposited at the sea-bottom.

10. Q. Should the land and the sea change places, would the new continent have chalk? A. The white ooze accumulating might make strata hundreds of feet thick.

11. Q. Where are the coal strata? A. They lie deep, notwithstanding their vegetable origin.

12. Q. What proof is there of such origin? A. Innumerable traceries of ferns, lepidodendrons, and other plants.

13. Q. What is inferred from the extent of coal deposits? A. That the flora of former times was much more luxuriant than at present.

14. Q. Why are no human fossils found in our coal fields? A. The ad-

vent of man was after the Carboniferous age.

15. Q. What is characteristic of limestone formations in Ohio and westward? A. Fossils of the Palæozoic age.

16. Q. Why are the older Devonian rocks sometimes near the surface? A. The later strata are entirely wanting.

17. Q. Where is this specially noticeable? A. In central and southern New York from the mountains to Lake Erie.

18. Q. In what localities are marine corals found? A. Near the falls of the Ohio, and at the head of Little Traverse Bay.

19. Q. Where is the pearly nautilus found? A. In strata of the Silurian age.

20. Q. What depth is reached by the Silurian rocks? A. Where the series of strata is complete, they lie thousands of feet from the surface.

21. Q. Do the remains of extinct animals suggest *method* in their construction? A. They were formed according to plans that imply mind.

22. Q. What are crustaceans? A. Aquatic animals, covered with crusts composed of segments or rings.

23. Q. What are trilobites? A. Crustaceans of which the body is divided lengthwise by grooves, the axis running through the middle.

24. Q. Why are crabs supposed to have the same descent as trilobites? A. Because of similarity of development in their embryonic state.

25. Q. What is admitted as apparently against the evolution theory? A. The abrupt appearance of unexpected forms in the Cambrian system.

26. Q. Is it possible to account for the absence of the expected lower types? A. The older rocks may have been subjected to heat that obliterated the record.

27. Q. What age is given to fossil crustaceans and trilobites? A. Millions of years.

28. Q. Where have men studied their embryonic development? A. In fossils.

29. Q. What are the bottom rocks called? A. Eozoic.

30. Q. What are their characteristics? A. They are vitreous, crystalline, and show very obscure traces of stratification.

31. Q. Which are the oldest known rocks? A. Granite, syenite, gneiss, hornblende-schist, conglomerate, quartzite, and marble.

32. Q. In what do these differ from rocks of later formations? A. In the absence of all organic remains.

33. Q. Where do some geologists claim to have found organisms of a low type? A. In crystalline limestones of Canada.

34. Q. What is said of these Eozoöns? A. That they were minute soft-bodied animals of lower grade than coral-producing polyps.

35. Q. Why are these deepest rocks believed to be of igneous origin? A. Water, unless intensely heated, could not have dissolved the substances they contain.

36. Q. Where was the heat necessary? A. It was internal, and as the cooling process continued, shut in by the strengthened crust.

37. Q. When the primitive rocks were forming what was the temperature of the earth and atmosphere? A. Exceedingly hot and dry.

38. Q. If all matter was at first gaseous, how have the mighty changes been wrought? A. Simply by letting it cool.

39. Q. Could heat alone change liquids and solids back to vapor and firemist? A. It is done daily in our laboratories.

40. Q. In what state were things first created? A. As elements that only infinite wisdom would use.

41. Q. How have comets been reduced in size? A. By the strain of contrary attractions.

42. Q. What are the small luminous bodies that often sweep through our atmosphere called? A. Meteors.

43. Q. What number of these is ignited in the atmosphere? A. Myriads. Some reach the earth as meteoric stones, most are consumed, and the cosmic dust scattered.

44. Q. What is the nebular theory? A. That the nebulous world-stuff when created had a globular form and rotary motion.

45. Q. What would result from the centrifugal force of the rotating mass? A. Rings would be thrown off, and planets formed.

46. Q. What part of the molten mass first became solid? A. The surface.

47. Q. How could the ocean originate? A. From a globe hot, but cooling, vapors would arise, clouds collect, and pour down rain.

48. Q. Could this accumulate? A. Not at first; but storm succeeding storm, in the great contest, water at length triumphed.

49. Q. After the contest what? A. Waters gathered on the still heated, crumpled crust, and held possession.

50. Q. How could an earth of minerals and water become the abode of life? A. Some minerals were soluble, and erosion helped in the preparation.

51. Q. Whence came life? A. Science can not tell. Germs and a new potency were mysteriously added.

52. Q. Where did both vegetable and animal life first appear? A. Probably in the Eozoic sea.

53. Q. Where are many remains of archaic vertebrates found? A. Among the fish-like fossils of the Devonian age.

54. Q. Of what class were the earliest American fishes? A. Sharks though different from any of the present time; and other kindred species.

55. Q. To what period are these assigned? A. The Corniferous; and our limestone is their sepulcher.

56. Are there yet older fish-fossils reported? A. At the bottom of the Clinton group, fifteen hundred feet below the others.

57. Q. Were animals coeval with vegetable life? A. Perhaps nearly so; when preparation was made for them, their history began.

58. Q. Were living germs mere accidents in nature, or the fruit of a beneficent purpose? A. Science failing to answer, we go to the Word.

59. Q. Why was the advent of air-breathing animals long delayed? A. Carbonic acid gas made the air for them irrespirable.

60. Q. How was it used? It passed into the material of our coal-beds, and was kept in store for future use.

61. Q. The earth made ready, in what order did its inhabitants appear? A. Amphibians, birds, reptiles, mammals, and men.

62. Q. Structurally, to what orders were amphibians related? A. To both fishes and reptiles.

63. Q. What followed the Carboniferous age? Huge reptiles.

64. Q. What mongrel forms succeeded? A. A wonderful compound of bird and reptile.

65. Q. Does succession and resemblance demonstrate a "genesis of species"? A. However similar, each order may have had a distinct origin.

66. Q. If other races were genealogically connected, does the chain reach to man? A. Such seems to have been the case, but the links are lost.

67. Q. What does geology in its present state teach respecting man? A. It does not affirm his evolution from any lower order.

68. Q. Has the race itself materially changed? A. Structurally, the geologic man was the equal of existing races.

69. Q. What shows there is an omnipresent intelligence controlling material organisms? A. The development of different types from germs and ova of the same matter.

70. Q. Have the germs and ova any intelligence to direct their own development? A. Something not in, but above, matter, and inscrutable, elects how they must grow.

QUESTIONS AND ANSWERS ON WHEELER'S "SELECTIONS FROM ENGLISH HISTORY."

1. Q. When does the history of England really begin? A. With the conquest of the island by the Jutes, Saxons, and Angles, (5th century).

2. Q. How long was the period of Roman occupancy? A. Three hundred fifty years.

3. Q. When the Romans withdrew, in what condition was the province left? A. Without defences, and exposed to savage foes.

4. Q. What resulted from wars with the invaders? A. The Angles, who gave their name to the country, prevailed.

5. Q. Was a united kingdom at once founded? A. The invaders of Teutonic races established ten or twelve petty dynasties more or less united.

6. Q. What became of the old Britains or Celts? A. They were exterminated, or absorbed in the new communities.

7. Q. What was their condition a century after? A. Teutonic customs prevailed and their heathenism was unchanged.

8. Q. What propagated Christianity among the heathen English? A. Missionaries appointed by Gregory, and led by the monk Augustine.

9. Q. How were they received by Ethelbert of Kent? A. Courteously, and the king himself became a convert.

10. Q. With whom were the Augustinians soon in bitter controversy? A. The clergy who followed Greek usages in their ceremonial.

11. Q. When were the English united under one ruler? A. During the reign of Egbert, king of Wessex.

12. Q. What danger then menaced the country? A. The invasion of the Danes.

13. Q. What English king was valiant in the wars with the Danes? A. The great and good Alfred, crowned in 871.

14. Q. Who was England's first great ecclesiastical statesman? A. Dunstan.

15. Q. What was the result of his policy? A. The Danes and English ceased hostilities, and became one people.

16. Q. To what ecclesiastical position was Dunstan advanced? A. The see of Canterbury, making him head of the church.

17. Q. When was the name of the country changed? A. Not until after the Danes came to know themselves as Englishmen.

18. Q. What attempt was afterward made by the King of Denmark? A. To subjugate all England.

19. Q. Was he successful? A. The conquest begun, was finished by Canute, who, a Dane, was acknowledged king of England.

20. Q. What was there strange in his career? A. He seized the throne, a ruthless pirate, and at once became a most prudent, beneficent ruler.

21. Q. What was the influence of the clergy in that early age? A. Good, and of great potency.

22. Q. What decisive battle occurred in 1066? A. The battle of Hastings, between William and Harold.

23. Q. With what results? A. Both armies suffered severely; Harold was killed, and the English nation was ruled by the Norman conquerors.

24. A. Did any advantage accrue to the English? A. An administration, harsh and cruel, brought peace and comparative security.

25. Q. Who was called "the red" king? A. William Rufus, son of the Norman conqueror, a man utterly reckless and of the vilest character.

26. Q. After the tragic death of Rufus who reigned? A. Henry, his younger brother, called the "scholar king."

27. Q. What was his character as sovereign? A. Stern, resolute, with statesmanlike love of order, he devoted himself to the cares of government.

28. Q. Who was Thomas á Becket? A. An able counselor of Henry II., and afterward archbishop of the realm.

29. Q. What led to his assassination? A. In some antagonism of church and state the Bishop loftily asserted the authority of the former.

30. Q. Did King Henry approve the murder of Becket? A. He deeply mourned what his own words, spoken in anger, had caused.

31. Q. What was Becket's reply to those who urged his escape? A. "I am ready to die. God's will be done."

32. Q. What clouded Henry's last days? A. Political and domestic troubles that were overwhelming.

33. Q. Of whom was the Magna Charta obtained? A. Of John I. of the line of Plantagenet.

34. Q. Did he intend to observe the charter? A. Preparations to violate it were obvious, but relief came by his timely death.

35. Q. What is said of the reign of Henry III.? A. It was long and prosperous, continuing for more than half the thirteenth century.

36. Q. To what was this prosperity attributed? A. Not especially to the king, but to his counsellors and statesmen.

37. Q. What was the condition of the religious orders toward its close? A. They increased in wealth, but became bankrupt in morals.

38. Q. When was the constitution, known as the "Provisions of Oxford," obtained? A. In 1258.

39. Q. Against whom did Edward make vigorous and destructive war? A. The Scottish borderers whose raids were troublesome.

40. Q. What chief was treated with savage cruelty? William Wallace, a patriot who fought to free Scotland.

41. Q. In what battle was Edward terribly defeated by the Scots under Bruce? A. The battle of Bannockburn, where fell thirty thousand Englishmen.

42. Q. Under what king did the hundred years war with France begin? A. Edward III.

43. Q. Where was the great victory of Crecy won? A. Near Abbeyville, Aug. 6, 1346.

44. Q. What great national calamity occurred during Edward's reign? A. The Plague, or Black Death, in 1348.

45. Q. What reformer appeared in Edward's time? A. John Wyclif.

46. Q. For what offence was Richard III. deposed? A. For arbitrary government, though, for a time, he had ruled wisely.

47. Q. Who destroyed the French army at Agincourt? A. Henry V., Oct. 14, 1415.

48. Q. Who secured for Charles VII. the throne of France? A. Jeanne d'Arc, a peasant girl who believed herself inspired of God to lead the army.

49. Q. After the French war what feuds wasted the English nobility? A. The struggle between the houses of York and Lancaster, called "Wars of the Roses."

50. Q. Who was the last king of the line of Plantagenets? A. Richard III.—killed at Bosworth field, Aug. 22, 1485.

THE QUESTION TABLE.

TWENTY TEST QUESTIONS ON ENGLISH LITERATURE.

1. Whom does Scott call the "Nun of Kent"?
2. To whom did Milton refer in "Il Penseroso" when he said,

"Call up him that left half-told
The story of Cambuscan bold?"

3. Who called Chaucer "well of English undefiled"?
4. Of whom did Wordsworth say, "He is the only wonderful man I ever knew"?
5. Who was called the "Ettrick Shepherd"?
6. What poet calls himself the "idle singer of an empty day"?
7. Who has been called the "day-star of English poetry"?
8. Who has been called "the sunrise of English poetry"?
9. Whom did Cowper call the "warbler of poetic prose"?
10. Of whom did Tennyson say, "She stood, a sight to make an old man young"?
11. Of whom did Carlyle say, "Good, gentle, high-gifted, ever friendly, noble,—every inch an honest man"?
12. Who is called "Prince of poets" on his monument in Westminster Abbey?
13. Who was called by Sir Walter Raleigh "the English Petrarch," and by Queen Elizabeth the "jewel of her dominions"?
14. Whom did Tennyson call "the world's greatest poet"?
15. Who is known as "the Quaker poet"?
16. Who has been called "the female Shakspere"?
17. What poetess was known to her contemporaries as "Perdita, the fair"?
18. Who is called "the immortal tinker"?
19. Who was the "banker poet"?
20. To whom did Walter Scott give the sobriquet of "rigdum funnidos"?

TWENTY QUESTIONS ON RHETORICAL STYLE.

1. What is meant by the style of an author?
2. Name ten adjectives that may be used to describe an author's style.
3. Give five ways in which style may be cultivated.
4. What is the Johnsonian style?
5. What is mannerism in style?
6. When is an author's style florid?
7. When is an author's style verbose?
8. In the best style are long or short sentences used?
9. What are the special properties of style?
10. Name two authors whose style is in contrast.
11. Use fitting words to describe the style of "Thanatopsis."
12. What is the bombastic style?
13. What are the qualities of style?
14. What is the difference between the French and German style?
15. Name an author whose style is rugged, vehement.
16. Name an author whose style is dignified, figurative, classical.
17. Does style remain the same in each literary period?
18. Should one attempt to adopt another's style?
19. What is harmony as used in style?
20. What is there in the style of the following which makes it so pleasing to read aloud?—

"I love the old melodious days
Which softly melt the ages through,
The songs of Spenser's golden days,
Arcadian Sidney's silvery phrase,
Sprinkling our noon of time with freshest morning dew."

TWENTY-FIVE QUESTIONS ON GEOLOGY.

1. Mention three examples of changes of level in the earth's crust occurring within a century.
2. How many feet of vegetable matter were required to make one foot of anthracite coal?
3. How many feet of vegetable matter were required for one foot of bituminous coal?
4. How far north have coal beds been found?
5. Which in all probability experiences the greater cold, the North Pole or the South Pole?
6. What is the estimated thickness of the ice at the North Pole?
7. Can any material "turn into stone"?
8. How then can petrified forms of animal and vegetable life be accounted for?
9. What is the meaning of the word "fossil"?
10. What minute animals secreted calcareous shells?
11. What microscopic plants secreted siliceous shells?
12. What vegetable growth forms the greater part of peat beds in temperate climates?
13. What island in the western hemisphere contains peat beds reaching eighty miles in length and two or three miles in breadth?
14. Who first advanced the opinion that corals belonged to the animal, and not to the vegetable, world?
15. What is the meaning of the word "zoöphyte" which Linnæus insisted upon applying to corals?
16. What amount of material is carried annually by the Mississippi River to the Gulf?
17. What is meant by a "bore" or "eagre," and what causes its appearance in rivers?
18. To what size has the eagre been known to attain?
19. What is a moraine?
20. What are *roches moutonnees?*
21. In what geological age did man appear upon the earth?
22. What era has been called the Stone Age?
23. What is the difference between a stalactite and a stalagmite?
24. What bird has become extinct within the last fifty years?
25. What river is famous for the series of caves in the calcareous rocks along its banks containing the fossil remains of human cave dwellers?

QUESTIONS ON THE WORLD OF TO-DAY.

IRELAND.

1. What is the area of Ireland?
2. Its population?
3. How many railroads in Ireland?
4. What is Ireland's chief educational institution?
5. In what century was Christianity introduced into Ireland?
6. Who first established English supremacy in Ireland?
7. When were the two islands joined under the name of "The United Kingdom of Great Britain and Ireland"?
8. Who was the most prominent public man in Ireland from 1823 to 1847?
9. Who were the Fenians?
10. What great grievance was removed by Gladstone in 1869?
11. What was his second great reform measure?
12. Who is the leader of the Home Rule members of the House of Commons?
13. What system of punishment called the unwritten law, was adopted by the Irish?

14. What action was taken by American legislators because of the "dynamite war"?
15. Who was Gladstone's successor?
16. What title was offered Gladstone after his resignation?
17. What is an *autonomic* government?
18. What are the two leading political parties in England?

MISCELLANEOUS QUESTIONS.

1. What French phrase corresponds to our "carrying coals to Newcastle"?
2. What is "primrose day"?
3. Why was Sir Robert Peel called "Orange Peel"?
4. What myth accounts for the blood-red color of the mulberry?
5. What country issued a currency known as "red-backs"?
6. What palace of Spain had its ground-plan in form of a gridiron, in memory of the martyrdom of St. Lawrence?
7. What is the only Christian country using the "old style" of time?
8. What is the difference between an heir-apparent and an heir-presumptive?
9. At what age did the present emperor of China take the throne?
10. What painting is called Guido's masterpiece?
11. When and where was the massacre of the Mamelukes?
12. What river flows part of the year in one direction and the rest of the year in an opposite direction?
13. What was the "parliament of dunces"?
14. Who is the world-renowned woman-astronomer?
15. In what year was Harvard College founded?
16. What is meant by Homeric verse?
17. Who said "I cannot wear a crown of gold where my Savior wore a crown of thorns"?
18. Who gave the month of July its name?
19. Who founded the society of Friends?
20. In what year and during whose reign were the laws of witchcraft repealed in England?

PRONOUCE CORRECTLY AND EXPLAIN REFERENCES.

Not long since while enjoying my *chateaux en Espagne*, Fortunatus appeared to me and gave me the wishing-cap. Soon I was in the presence of Wilhelm Meister and saw Mignon in her fairy dance; next Ali Baba stood before me conjuring with his well-known words "Open, Sesame"; then I took an Asmodeus flight and looked down upon the mendacious Munchausen, saw Prospero casting his potent spell over Antonio; I passed on and heard Lady Geraldine and Aurora Leigh, seated in fair Rosamond's boudoir, discussing the æsthetic spirit of the age, saw King Cophetua wooing the beggar-maid; still continuing my excursion I was soon with Il Penseroso in Cimmerian darkness and heard the far-away laughter of L'Allegro and his woodland nymphs, and in the distance was Sir Launfal traversing the Via Dolorosa searching for the Sangreal.

IN WHAT BOOK ARE THE FOLLOWING CHARACTERS?

1. Anne Page.
2. Mignon.
3. Sir Guyon.
4. Puck.
5. Sancho Panza.
6. Deborah Primrose.
7. Mrs. Malaprop.
8. Young Marlow.
9. Sir Peter Teazle.
10. "My Uncle Toby."
11. Front-de-Bœuf.
12. Mr. Worldly Wiseman.
13. Long Tom Coffin.
14. Becky Sharp.
15. Barkis.
16. Ichabod Crane.
17. Ellen Douglas.
18. Scrooge.
19. Meg Merrilies.
20. Natty Bumppo.
21. Mark Tapley.
22. Jean Valjean.
23. Lady Waldemar.
24. Miss Ophelia.
25. Lady Psyche.
26. Lord Alfred Vargrave.
27. Margaret Harold.
28. Hester Prynne.
29. Harry Wadsworth.
30. Priscilla.
31. Dinah Morris.
32. Sheila.
33. Fraulein Hahlreiner.
34. Philip Nolan.
35. Phineas Fletcher.
36. Gwendolen.
37. Messala.
38. "Zekle."
39. Philamon.
40. Comfort Servosse.
41. Tredennis.
42. Miss Birdseye.
43. Prudence Shaw.
44. Allessandro.
45. Lemuel Barker.

QUESTIONS OF OPINION.

1. What verse of the Bible do you consider the most comforting?
2. What three words of the English language are most frequently misused?
3. What three are most frequently mispronounced?
4. Who was the grandest character in the Old Testament?
5. What is the most beautiful short poem of American literature?
6. Which is Shakspere's best female character?
7. Which is Shakspere's best sonnet?
8. What person having the title of *saint* is most worthy of it?
9. If your reading for life were to be limited to five volumes what ones would you select?
10. What beverage is most injurious to health?
11. What is Tennyson's finest poem?
12. What was the wisest of "Poor Richard Sayings"?

ANSWERS TO QUESTIONS IN THE CHAUTAUQUAN FOR OCTOBER.

ENGLISH LITERATURE.

1. Gildas. 2. Bacon, by Pope. 3. Roger Ascham. 4. Edmund Waller. 5. Burton's "Anatomy of Melancholy." 6. Addison. 7. Ambrose Phillips. 8. Richardson. 9. Lady Dorothea Sidney, by Waller. 10. "Pamela" by Richardson and "Joseph Andrews" by Fielding. 11. Sterne. 12. 1825—Written in cipher and hidden from view for more than a century. It was finally discovered in the library of Magdalen College, Oxford. 13. A promenade under the elms at Oxford, by the shore of the Isis. 14. Gower's "Confessio Amantis" in answer to the request of Richard II. 15. From "Euphues," a book written by John Lyly. 16. That of Sir Philip Sidney. 17. Raleigh's "History of the World." 18. Blackfriar's. 19. Miss Burney's "Evelina." 20. Spenser. Shelley. 21. By Mrs. Brooke from Nov., 1755 to July, 1756. 22. Robert Burns. 23. Among literary men, whether ancient or modern authors were the better. Dean Swift. 24. Mandeville. 25. Protestant cemetery—Rome.

PUNCTUATION.

1. Perspicuity. 2. , ; : . 3. Spanish. 4. A mark of distinction at the end of each word. 5. By Aldus Manutius, in 1500. 6. A capital letter at the beginning of a sentence is a sign of a new assertion. A capitalized word in any other position has added dignity. 7. Charles is bold. Charles, the Bold. The first simply an attribute, the second, a title. 8. What, can the devil speak true? What can the devil speak true? 9. The lilies say: "Behold how we preach, without words, of purity." 10. Either Mary or Elizabeth can be made wife. 11. Abbreviations in very familiar use acquire the character of integral words. They become nouns, with a singular and plural. 12. Because the first and last letters are used. 13. Ridicule, doubt. 14. It was a short, cool, cutting letter. 15. It was made of red, white, and blue, calico. 16. Pronunciation. 17. Outside the quotation marks. 18. "Disguise thyself as thou wilt, Slavery," said I, "still thou art a bitter draught; and though thousands in all ages have been made to drink of thee, thou art no less bitter on that account." 19. "Since the time of Chaucer, there have been only two poets who at all resemble him; and these two are widely dissimilar one from the other—Burns and Keats." 20. "The fear which gives its lightning-speed to the unhappy animal; the thickening horrors, which, in the progress of exhaustion, must gather upon its flight; its gradually sinking energies, and, at length, the terrible certainty of that destruction which is awaiting it; that piteous cry which the ear can sometimes distinguish amid the deafening clamor of the blood-hounds as they spring exultingly upon their prey; the dread massacre and dying agonies of a creature so miserably torn,—all this weight of misery, we admit, is not once sympathized with; but it is just because the suffering is not once thought of."

GEOLOGY.

1. That shells were to be found on the mountains of Egypt. 2. That Egypt was once a gulf of the sea. 3. Alternating periods of destruction and renovation are recognized. 4. "I have seen what had been the most solid land become a part of the sea; I have seen lands made from the water, and shells lying far from the ocean." 5. Leonardo da Vinci. 6. Leibnitz. 7. Dr. Lister. 8. William Woodward. 9. In the latter part of the eighteenth century. 10. Whether rocks were produced by aqueous deposition alone, or whether many of them owed their origin to the action of fire. 11. Werner, Smith, and Cuvier. 12. One supposes the earth to consist of a solid crust and molten interior. A second, that the earth is solid to the center. A third, that the mass of the globe is solid, but that there is a liquid substratum beneath the crust. 13. It has been variously estimated at from ten to twenty miles in thickness. 14. To an excess of heavy materials lying between the water bed and the center of the earth. 15. About one hundred million years. 16. By some, thirty-one thousand years; by others, three hundred eighty thousand years. 17. In 1807. 18. Mineralogy, for the constitution of rocks; chemistry and physics, for the laws of change; and zoölogy and botany, for fossil remains. 19. "Geology is the science which investigates the successive changes that have taken place in nature." 20. In North America, stretching from the north side of the St. Lawrence River and Lake Superior northward to a great distance. 21. The land must have slowly subsided beneath them. 22. Just as the Palisades of the Hudson. (See page 96 of "Walks and Talks in the Geological Field"). 23. Sea-weeds. Protozoans. 24. Insects. 25. "The constant changes which are going on inside the earth affect the exterior, and cause cracks or faults in the rocks. One side of the rocks at the faults will suddenly cave in and in doing so exert such a pressure as to shake the earth for miles around."—*Prof. Newberry of Columbia College, after the recent earthquake at Charleston.*

THE WORLD OF TO-DAY.

1. 24,360 square miles. 2. Sofia. 3. Seventy per cent. are Christians of the Greek church, twenty-nine per cent, Mohammedans, and the rest Jews. 4. Bulgarian. 5. April 29, 1879. 6. To modify the first treaty, that of San Stefano, which had caused general dissatisfaction. 7. Lord Beaconsfield. 8. The treaty signed March 3, 1878, at San Stefano, a small village near Constantinople. It established the independence of Montenegro, Servia, and Roumania; constituted Bulgaria a tributary principality; required a heavy indemnity from Turkey for Russia; obtained rights for the Christians; opened the Bosphorus and Dardanelles in peace and war, etc. 9. "Freely selected by the population, and confirmed by the sublime Porte, with the assent of the Powers." (Treaty of Berlin). 10. Turkey. 11. Agriculture and grazing. 12. Union of Bulgaria and Eastern Roumelia. 13. Philippopolis. 14. He issued a circular announcing the union. 15. That a new equlibrium should be established in the Balkans if the Bulgarian union were suffered to remain. 16. Bulgaria. 17. All the powers agreed to a declaration in favor of the restoration of the *status quo ante* in conformity with the treaty of Berlin and under the suzerainty of the Sultan. 19. Greece. 20. A diplomatic submission to the Czar.

MISCELLANEOUS QUESTIONS.

1. The battle of Marathon, B. C. 490. Defeat of the Athenians at Syracuse, B. C. 413. Battle of Arbela, B. C. 331. The total defeat of the Roman legions under Varus, A. D. 9. Battle of Chalons, A. D. 45. Battle of Hastings, A. D. 1066. Battle at Orleans, Joan of Arc, A. D. 1429. Defeat of the Spanish Armada, A. D. 1458. Battle of Blenheim, A. D. 1704. Defeat of Burgoyne at Saratoga, A. D. 1777. Battle of Waterloo, A. D. 1815. 2. Domitian, the last of the twelve Cæsars. 3. Amelia B. Welby. 4. Strict confidence. The rose among the ancients was the symbol of silence; and when suspended from the ceiling of their banquet rooms indicated that whatever was said there, was considered sacredly private. 5. Lord Brougham who said, "Let the soldier be abroad if he will—he can do nothing in this age. The school-master is abroad, and I trust to him, armed with his primer, rather than to the soldier in full array." 6. Yes. Experiments show that, in a less degree, it exerts the same influence as the sun itself. 7. In the drama of Alexander the Great, and have reference to the determined resistance offered by the Greek cities to Philip and Alexander. 8. Any unnecessary action; Newcastle being the center of the great coal fields of England. 9. It is a mark of distinction. The wild tribes of Asia and America add a new feather to their headdress for every enemy they overcome. 10. Sir Thomas More advised an incompetent but conceited author of a book submitted to him for criticism to change it into rhyme. When it was done, the satirist said, "Ay, ay, that will do; 'tis rhyme now, but before it was neither rhyme nor reason." 11. An auspicious day,—one to be remembered with satisfaction—so called because, in the old calendars the Holy or Saints' days were marked with red letters. 12. It is a corruption of the word English as the Indians attempted to pronounce it—"Yenghies," "Yanghies," and finally "Yankees." The British soldiers caught it from the aborigines and applied it derisively to the New England colonists, who adopted it, proud of a name that would distinguish them from other English men. 13. Perhaps not; yet there is danger, if they run very near combustible substances that some of the fluid may escape and cause them to burn. 14. Washington, when perplexed and in need of help, applied with confidence to the patriotic Jonathan Trumbull, Governor of Connecticut, saying, "We must consult Brother Jonathan." He ever obtained wise counsel and ready assistance. "Brother Jonathan," used for a time sportively for a man of means and expedients, became a national sobriquet. 15. In 1712—in Arbuthnot's "History of John Bull." 16. An unlucky day. The Romans in their early history marked their lucky days with white chalk, those unlucky with charcoal. 17. Ptolemy Soter asked Euclid, the Alexandrian mathematician, to instruct him in the science of geometery in a more concise manner; "Sire," said Euclid, "There is no royal road to learning." 18. It was probably at first a corruption of "folio capo," indicating the size of the sheet. But the change must have taken place early, since in the thirteenth century the trade mark on that sized paper was a fool's head with cap and bells. 19. John Keats. See "Endymion." Book I. 20. A school of Alexandrian philosophers who, in the third century, attempted to combine the doctrines of Plato and Christianity. 21. Abou Hassan, a rich merchant who was transferred while asleep to the palace of Haroun al Raschid, and was there treated as caliph. 22. From a superstition that a piece of the forbidden fruit which Adam ate, stuck in his throat, causing it to swell. 23. An anti-pope is a pope elected by a king, in opposition to a pope elected by the cardinals; twenty-four. 24. Edinburgh, because of the filthy state of the streets. 25. Alexander Pope. 26. A name applied to the great stone upon which the Scotch monarchs were crowned. It was brought by Edward III. to England and still forms the support of the chair in which the English monarchs are crowned. 27. It was the first trade union. It was established in the thirteenth century by some German cities, for their mutual protection. The diet which was held every three years was called the *Hansa*. 28. James H. Hammond in the United States' Senate, in 1858. 29. The fact that they were happy and prosperous days to a victorious gladiator when he went to receive the palm-branch as the reward of his prowess. 30 A celebrated Englishman of fashion, named George Bryan, who lived from 1778 to 1840.

TALK ABOUT BOOKS.

A biography of Lord Shaftesbury* in all respects worthy of the name has appeared in the series of "English Worthies." No more interesting subject could have offered for a writer than this shrewd politician who typified in himself the most striking traits of the profligate age in which he lived. In tracing to their source and to their outcome, the motives which actuated him, Mr. Trail has really given the history of the latter part of Cromwell's time, and that of Charles II. The book is an entertaining one and will win for itself a wide reading.

After an absence of twenty years, Mr. Arnold returned to the land for which his previous long residence had won his good-will. He gives a full account of this second journey in "India Revisited."† But the reader who remembers the many claims made upon his admiration by the author's poem, "The Light of Asia," lays down this book with a feeling of disappointment. Many things necessary to give a clear understanding of the country and the people, in such a work, are omitted, and minor matters are frequently given in such detail as to be hard to follow. Mr. Arnold, however, could not write an uninteresting book, and this contains much that is enjoyable.

An entire change in the system of land ownership is the plan advocated by Mr. Phillips in "Labor, Land, and Law,"‡ as the only one which can bring to a peaceful and satisfactory settlement the troubles existing between labor and capital. In his search for the missing wealth of the working poor, he has traversed the whole field of history, and claims to have invariably found it in the hands of monopolists, firmly secured to them by titles to large amounts of real estate. He argues that no one could have this power to lay hands on the bounties of nature and deprive others of their just share in them, if the government held the title to all lands. A limited acreage could be held for a very small tax, or rent; but the taxes should increase so rapidly with the increased amount of land that no one would desire a great amount. The book is earnest in its tone, careful in its statements, pleasing in its style, and full of interest.

More careful study and more candid discussion were never given to the labor question as it affects America than that by Professor Ely of Johns Hopkins University in his recent book.‖ He fully appreciates the great difficulty of handling a subject of such vital interest without giving offense to many; but he has, nevertheless, pursued a straightforward course. He boldly gives the results of his long continued researches, and expresses his own convictions. Critical comments, favorable and the reverse, are openly made upon measures adopted by both sides in this great national struggle, and remedies advocated, which call for much concession and self-renunciation on the part of both capital and labor. The book contains a full history of the rise and development of labor organizations and of socialism, and is full of practical lessons.

Beginning with the presidency of John Quincy Adams, "Perley's Reminiscences"* sketches the years through to the administration of James Buchanan, giving many a laughable incident and thrilling scene which transpired at the national capital. As long as people take delight in hearing about the personal traits and private history of famous persons, so long will books of this character be in popular demand. And no such work was ever more satisfactory than is this one. It is full of gossip of the most interesting kind about the most interesting people, gathered during Major Poore's forty years' residence in Washington. His calling as a journalist has taught him how to study people, both those about whom, and those for whom, he writes; and an apt, terse style of expression, all his own, completed the requirements necessary for the production of this successful work.

The healthful curiosity, which all possess in regard to the lives of women who have become eminent, is fully satisfied by Sarah K. Bolton in "Girls who Became Famous."† The book is inspiring and aims to enforce the truth that "all may be superior beings."

A new idea in book-making was carried out by Mr. Gilman in "Short Stories from the Dictionary."‡ This field furnished a rich harvest of literary material, from which he has garnered many a golden sheaf which he now presents to young readers. The great amount of work done by Noah Webster in the preparation of his unabridged volume is described, and entertaining accounts of the derivation and history of many words are given. The author has mastered the true art of story telling and holds the reader's attention as closely as if he were relating fairy tales instead of simply telling stories about words.

"Scriptures Hebrew and Christian"‖ is the misleading title of a book which is the story of the Bible retold for young readers. It differs from all other works of this character in that it simply collects and connects into a continuous narrative the Bible accounts of men and events, making as little change as possible from the original. As a work to awaken a greater love for the study of the Scriptures among the young, as was its design, it will not prove a success. It is heavy and uninviting in its appearance; it does not inspire in its readers that reverential interest which the Bible itself does; and it lacks that attraction which the stories retold in the language of to-day would possess. As a reference book, which can be consulted as a cyclopedia can, for a condensed account of a subject, it possesses great merit.

A little volume of verse from the pen of one now on the verge of fourscore, who for so many years has been gladdening the hearts of his fellow beings by his strains of sympathy, encouragement, inspiration, and love, is a gift

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*Shaftesbury. By H. D. Trail. New York: D. Appleton & Co. 1886. Price, 75 cents.

†India Revisited. By Edwin Arnold, M. A., C. S. I. Boston: Roberts Brothers. 1886. $2.00.

‡Labor, Land, and Law. By William A. Phillips. New York: Charles Scribner's Sons. 1886. Price, $2.50.

‖The Labor Movement in America. By Richard T. Ely, Ph.D. New York: Thomas Y. Crowell.

*Perley's Reminiscences of Sixty Years in the National Metropolis. By Ben: Perley Poore. Illustrated. Vol. I. Philadelphia: Hubbard Brothers Publishers.

†Lives of Girls Who Became Famous. By Sarah K. Bolton. New York: Thomas Y. Crowell & Co. 1886.

‡Short Stories from the Dictionary. By Arthur Gilman, M. A. Chicago: The Inter-State Publishing Company. Boston: 30 Franklin Street.

‖Scriptures Hebrew and Christian. By Edward T. Bartlett, A. M., and John P. Peters, Ph.D. Vol. I. Hebrew Story from Creation to the Exile. New York: G. P. Putnam's Sons. 1886. Price, $1.50.

which all will receive with joyful hearts. Better lessons were never taught in sweeter form than these contained in "Saint Gregory's Guest, and Recent Poems."* The clear, soft light, and warm, sweet air of the Indian summer of his life, seem to reveal to Mr. Whittier even more clearly the secret of all true living. And in his own charming way he tells this secret, clothed in different forms, to the world, seeking to lead all to nobler endeavor. The publishers have done their part in making the style of the book in keeping with its contents. Printed on firm paper, with wide margins and uncut edges, it is provided with a dainty parchment cover, all of which make it most attractive.

The publications of every month multiply the number of books about books. A few of these are worth attention; notably so is Maria Rosetti's "Shadow of Dante."† She has condensed into two hundred ninety pages the sense of the great Italian's writings. By quotations and prose summaries she follows the pilgrimages of the *Inferno*, *Purgatorio*, and *Paradiso*. The universe of Dante, always a hard conception to the beginner in the *Divina Commedia*, is explained in a series of ingenious charts. Concise and careful explanations of the historical allusions, the political conditions, and the philosophical theories of the poems are a helpful feature. Though in no sense a substitute for Dante it is an excellent chart for a student of the poet.

A more delightful book for leisure hours could not be found than "Genius in Sunshine and Shadow."‡ It is made up of familiar gossip about those who have written their names in the lists of the world's great ones. The chief charm of the volume lies in the fact that there is nothing formal in it. A series of delineations of personal character, and of anecdotes, is given in the form of brief notes. The origin of famous people; their idiosyncrasies; their joys and their sorrows; and their last words, are the themes of some of the chapters.

"Mary, Queen of the House of David"‖ is a story of the fourteenth century, and not of the first, as one would be led to think from the title. It is of the sweet influence of Mary's life upon the troubled life of others that the author treats. The return of a crusader from the Holy Land, after the defeat of the Christians at Acre, and his marriage with a Jewish maiden, furnish the outlines. The many historical incidents given, and the full descriptions of many Jewish customs and ceremonies add great value to the work. Troubles and disasters most dire, crowd thick and fast upon the leading characters, who all, though of widely differing religious beliefs, at last have their lives attuned to the principles of Christianity. The plot is a strong one, and well-conceived.

In the series of "English Worthies"§ the life of Charles Darwin has been written by a naturalist of his own school. The work is much more than simply a biographical sketch. It treats of Darwin as one of the advanced thinkers of his age, and defines his position in the world of science. The style is argumentative, the theory of evolution being strongly advocated; but the author possesses the happy faculty of being able to render argument exceedingly interesting. Like too many biographies, this one is tinged by the intense admiration of the author for his subject.

Lydia Hoyt Farmer adds another to the increasing list of boys' books.¶ The most important events as well as much of the romance, of the lives of famous rulers from the time of Agamemnon to Napoleon are narrated. Interesting descriptions of the manners and customs of various periods are given. A good book to read for popular history.

There never was a more charming book of its kind, than "Boys' Book of Sports."** The very first page puts "spring in the air, and in the blood." The authors and artists have been so successful that one longs for the purity of the outdoor air. Vigorous exercise is approved, believing that the influence of field, wood, and bird, will make the mental life more healthy and pure. The book not only furnishes amusement and instruction, but is a work of art in literature and illustration.

Louisa M. Alcott has given us in "Jo's Boys,"†† the "last appearance of the March family;" all regret that "the curtain falls forever" on this interesting group. In this volume the boys are grown-up and pass through all the "catastrophes" of love-making, but motherly Mrs. Bhaer is still their confident and adviser. The book while not quite so spontaneous as its predecessors, is bright, true, and helpful.

Mr. Gage, the author of "A Leisurely Journey,"‡‡ spent more than a year in wandering over England, Germany, Switzerland, and the Engadine. With time at his command, he had leisure to enjoy and study foreign life; and he has given us an account of many interesting things but in such a commonplace style that the book is a little tiresome.

"Agassiz's Journey in Brazil"* is not a specific account of his scientific researches while there, but is the common journal of Professor and Mrs. Agassiz. The description of life in Rio Janeiro and many other cities, of the people and scenery of various countries, make it of interest to the general reader. The scientist also may take pleasure in the observations and investigations recorded. The book closes with impressions of the religion, education, products, emigration, etc., of Brazil. The wood-cuts and a map of the entire trip help one to follow the journey understandingly.

In all of Miss Woolson's stories the characterization is fine and strong, particularly so in "East Angels."† Garda, Lanse, and Mrs. Rutherford, as types of utter selfishness,—prim little Mrs. Thorne who "had pretended so long, and was so tired of pretending,"—the quaint people of the village,—and Margaret, the beautiful heroine, yielding her life an unappreciated sacrifice, "growing old before her time,"—where can we find pictures drawn with a more skillful hand? The graphic glimpses of the everglades are as realistic as the scenes among the lakes in "Anne," while choice bits of description of the flowers, the trees, the sunsets, the songs of the birds, abound everywhere.

A translation from a popular German work by Mrs. A. L. Wister is always welcome. In "Violetta"‡ the merit lies in the description and character analysis rather than in the plan.

The compilations and comments of Mr. Upton's books are of great interest to the general public as well as to the musical student. A second edition of "Woman in Music"‖ has just been issued. The style is historical, not philosophical. The book is well written, and shows careful study and research.

A collection of verses by Arlo Bates bears the poetic title "Berries of the Brier."§ Love, evidently, is the "brier" on which these berries grew. The imagery of the verses is striking, original, and true, but the meter is not always successful, failing in rhythm. A depth of genuine passion and pathos characterizes a large number of the poems.

The scientific revolution in the study of language has had no abler champion than Prof. Whitney of Yale College. His "Life and Growth of Language"¶ in the "International Scientific Series" is a compact, scholarly, and entertaining work. The mass of learning at the professor's command never masters him. He invariably commands it, giving just enough to illustrate his point rather than so much as to overwhelm his reader. The style is attractive and the arrangement simple enough for beginners in the science.

"Handy Helps"** is a volume containing five hundred questions on curious subjects, with their answers. It is provided with a full index, and one on glancing over it will see many things about which he has long wished to know and which he will find fully explained. It is a book which teachers could use to great advantage, to afford variety and awaken interest in the school-room. The index needs a little revision, as the reviewer looked in vain over the indicated pages to find out concerning some of the topics, among others for "Boycotting" and the "Longest name ever used."

One of the most valuable books that could be placed in the family library, is the "Household Manual of Medicine."†† The opening chapters explain the anatomy and the physiology of the human system, and by the aid of many illustrations and carefully lettered diagrams these subjects are made so clear that none who try, can fail to understand them. Hygiene is treated in an unusually interesting manner, and cannot fail to arouse all who read it to the necessity of giving more attention to this sadly neglected topic. The style of the author is such as to impress the reader that all which is said has been carefully tested and is worthy of the utmost confidence. Books of this grade and character scattered throughout the country would be a blessing to the human race.

Already books suitable to the holiday season are appearing. The boys and girls who read the Christmas stories‡‡ translated from the German by Mary J. Safford, will in their dreams visit fairy-land and the Christmas-man will bestow upon them his choicest gifts. The original as well as the translated stories in this book have all the charm of the fanciful.

"From Meadow-Sweet to Mistletoe"‖‖ with its motto "Let good cheer run round the year," is as dainty and artistic a little a book as one could imagine brought fresh from fairy-land. Miss Lathbury's verses are as sweet as the children's faces of her magic brush. Each poem is explanatory of the scene

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*St. Gregory's Guest and Recent Poems. By John Greenleaf Whittier. Boston: Houghton, Mifflin, and Company. 1886. Price, $1.00.

†A Shadow of Dante. Being an Essay towards Studying Himself, his World, and his Pilgrimage. By Maria Rosetti. Boston: Roberts Brothers. 1886.

‡Genius in Sunshine and Shadow. By Maturin M. Ballou. Boston: Ticknor and Company.

‖Mary, Queen of the House of David. By Rev. A. Stewart Walsh, D. D. With an Introduction by Rev. T. DeWitt Talmage, D. D. New York: Henry S. Allen. 1886.

§Charles Darwin. By Grant Allen. New York: D. Appleton and Company. Price, 75 cts.

¶The Boys' Book of Famous Rulers. By Lydia Hoyt Farmer. New York: Thomas Y. Crowell & Co.

**The Boys' Book of Sports, and Outdoor Life. Edited by Maurice Thompson. New York: The Century Co. 1886.

††Jo's Boys and How They Turned Out. By Louisa M. Alcott. Boston: Roberts Brothers. 1886.

‡‡A Leisurely Journey. By William Leonard Gage. Boston: D. Lothrop & Co. Price, $1.00.

*A Journey in Brazil. By Professor and Mrs. Louis Agassiz. Boston and New York: Houghton, Mifflin, & Co. 1886.

†East Angels. A novel. By Constance Fenimore Woolson. New York: Harper & Brothers. 1886. Price, $1.25.

‡Violetta. After the German of Ursulu Zöge Von Manteuffel. By Mrs. A. L. Wister. Philadelphia: J. B. Lippincott Company. 1886.

‖Woman in Music. By George P. Upton. Chicago: A. C. McClurg & Co.

§Berries of the Briar. Arlo Bates. Boston: Roberts Brothers. 1886.

¶The Life and Growth of Language. An Outline of Linguistic Science. By William Dwight Whitney. New York: D. Appleton & Co. 1886. Price, $1.50.

**Handy Helps. No. 1. By Albert P. Southwick, A. M. New York: E. L. Kellogg & Co. 1886. Price, $1.00.

††A Household Manual of Medicine, Surgery, Nursing and Hygiene. By Henry Hartshorne, M. D., LL.D. Philadelphia: Lea Brothers & Co. 1886. Price, cloth, $4.00; leather, $5.00.

‡‡The Christmas Country, and Other Tales. A collection of stories written and translated. By Mary J. Safford. New York: Thomas Y. Crowell & Co.

‖‖From Meadow-Sweet to Mistletoe. By Mary A. Lathbury. New York: Worthington Co.

which fills the opposite page. The pictures are reproduced directly from the original drawings, so that the spirit is kept as it cannot be by any other process. Perhaps the finest in this rare little gallery are "Sweets for the Sweet," "A Five O'clock Tea," "Christmas Gifts," "April," and "The Shipwreck."

A series of historical studies in story form cannot fail to attract young readers. Such a series is the "Story of the Nations" now in course of preparation. Of these the latest are Germany*, Spain†, Norway‡, Hungary‖, and Carthage.‖ The authors chosen are eminently fitted for the tasks assigned them, and the twenty books of the set will form an invaluable addition to the library of every thoughtful boy and girl. Although early legends are given they are distinguished from actual history, and the results of all the latest investigations are presented. The reader is not wearied by a long list of dates or dry, uninteresting annals, but in a simple and graphic style is told the story of each country, thus forming a sound basis for subsequent study. The illustrations and type are excellent.

Students of the French language will find a book well suited to their requirements in "La France,"¶ a little work recently published. After a brief historical sketch, it contains a full description of the France of to-day; of its republican form of government; of the leading men in every department of active life; its celebrated institutions; chief industries, etc. It is at once interesting and instructive; and when the student has finished it, he knows much, which it would be hard to find elsewhere, of the people whose language he has been learning. The book is written in a simple, natural style, one which can be easily translated; and it does not contain those frequent idioms and obscure constructions which often prove so difficult for English students of French history in the original. It is to be one of the text-books in the French department of the Chautauqua Schools of Language.

A hand-book of special value to teachers will be found in "Bibliography of Education."** It is a guide to the best books treating on educational topics, and has been prepared with the utmost care. The books are classified and arranged alphabetically, with frequent notes and comments. By the help of this work, teachers will be spared the annoyance of wasting any of their limited time for general reading, on that which is worthless.

A carefully prepared list of all newspapers and periodicals in the United States and Canada, giving circulation, size, rates of advertising, year of establishment, and general characteristics,—such is furnished by the "American Newspaper Annual."†† This feature alone makes the book invaluable to every publisher and editor, but there are, in addition, many items of great interest to every business man.

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*Germany. By Sabine Baring-Gould, M. A., with the collaboration of Arthur Gilman, M. A. New York: G. P. Putnam's Sons.

†Spain. By Edward Everett Hale and Susan Hale. New York: G. P. Putnam's Sons.

‡Norway. By Hjalmar H. Boyesen. New York: G. P. Putnam's Sons.

‖Hungary. By Arminius Vámbéry, with the collaboration of Louis Heilprin. New York: G. P. Putnam's Sons.

‖Carthage. By Alfred J. Church, M. A., with the collaboration of Arthur Gilman, M. A. New York: G. P. Putnam's Sons.

¶La France. Par A. de Rougement. New York: The Writer's Publishing Company, 21 University Place.

**Bibliography of Education. Arranged by Topics and indexed by Authors. By G. Stanley Hall and John M. Mansfield. Boston: D. C. Heath & Co. 1886. Price, $1.10.

††American Newspaper Annual. Philadelphia: N. W. Ayres & Son.

BOOKS RECEIVED.

The Irish Question. By the Right Hon. W. E. Gladstone. New York: Charles Scribner's Sons. 1886. Price, 10c.

Evolution and Religion. By Henry Ward Beecher. New York: Fords, Howard, & Hulbert. 1885. Price, 50c.

Studies in Greek and Roman History; or, Studies in General History from 1000 B. C. to 476 A. D. By Mary D. Sheldon. Boston: D. C. Heath and Co. 1886. Price, $1.60.

Philosophy of Education. By Johann Carl Friedrich Rosenkranz. Translated from the German by Anna C. Brackett. New York: D. Appleton and Co. 1886. Price, $1.50.

Seven Hundred Album Verses. Compiled by J. S. Ogilvie. New York: J. S. Ogilvie and Co. Price, 15c.

Book of Psalms. American revised edition. New York: Fords, Howard, & Hulbert. 1885.

The Report of the Manufacture of Coke. By Joseph D. Weeks. Washington: Government Printing Office. 1885.

The Report of the Manufacture of Glass. By Joseph D. Weeks. Washington: Government Printing Office. 1885.

The Full Stature of a Man. A Life Story. By Julian Warth. Boston: D. Lothrop and Co.

School Devices. A Book of Ways and Suggestions for Teachers. By Edward R. Shaw and Webb Donnell. New York: E. L. Kellogg and Co. 1886.

Stories from Life. By Sarah K. Bolton. New York: Thomas Y. Crowell. Price, $1.25.

Songs and Ballads of the Southern People. Collected and edited by Frank Moore. New York: D. Appleton & Co.

Essential Lessons in English Etymology. By John G. R. McElroy, A. M. Philadelphia: John E. Potter and Co. Price, 75c.

Through the Year with the Poets. September. Edited by Oscar Fay Adams. Boston: D. Lothrop and Co. Price, 75c.

Entertainments in Chemistry. By Harry W. Tyler, S. B. Boston & Chicago: The Inter-State Publishing Co.

How to Strengthen the Memory; or, Natural and Scientific Methods of Never Forgetting. By M. L. Holbrook, M. D. New York: M. L. Holbrook and Co. Price, $1.00.

Constance of Acadia. A Novel. Boston: Roberts Bros. 1886.

Easy Lessons in French. The Cumulative Method. By Adolphe Dreyspring. New York: D. Appleton & Co. 1886.

Our Government. How it grew, What it does, And how it does it. By Jesse Macy, A. M. Boston: Ginn & Co. 1886.

The Historical Students' Manual. By Alfred Waites. Boston: Lee & Shepard. New York: Charles T. Dillingham. 1886.

Lectures in the Training Schools for Kindergartners. By Elizabeth Peabody. Boston: D. C. Heath & Co. 1886.

Classics for Children. A First Reader. By J. H. Stickney. Boston: Ginn & Co. 1886.

The First Three Years of Childhood. By Bernard Perez. Chicago: A. N. Marquis & Co. 1885.

The Kindergarten and the School. By Four Active Workers. Springfield, Mass.: Milton Bradley Co.

Elementary Lessons in Greek Syntax. Designed to accompany the reading of Xenophon's Anabasis. By S. R. Winchell, A. M. New York: D. Appleton & Co. 1886.

Recreation in Ancient Fields. By Rev. Egbert C. Lawrence, A. M. Syracuse: C. N. Bardeen, Publisher. 1884.

Selections for Written Reproductions. By Edward R. Shaw. New York: D. Appleton & Co. 1886.

Peeps at Real China. Translated by Clara M. Cushman. Boston: J. W. Hamilton, Printer. 1885.

Bradford Academy. Hariette Briggs Stoddard. By Mrs. J. D. Kingsbury. Boston: McIndoe Bros., Printers. 1886.

Pease's Singing Book. For the Use of High School and Singing Classes. By F. H. Pease. Boston: Ginn & Co. 1885.

Sadler's Commercial Arithmetic. By W. H. Sadler and W. R. Will. Baltimore: W. H. Sadler, Publisher. 1886.

Humboldt Library No. 81. I. The Mystery of Life: II. The Philosophy of Ignorance. By J. Allason Picton. New York: J. Fitzgerald, Publisher 1886.

PARAGRAPHS FROM NEW BOOKS.

TOOTS AND BOOTS.—My name is Toots. Why, I have not the slightest idea. But I suppose very few people—cats or otherwise—are consulted about their own names. If they were, these would perhaps be, as a rule, more appropriate.

What qualities of mind or body my name was supposed to illustrate, I have not to this hour a notion. I distinctly remember the stage of my kittenhood, when I thought Toots was the English for cream.

"Toots! Toots!" my young mistress used to say, in the most suggestive tones, creeping after me as I would creep after a mouse, with a saucerful of that delicious liquid in her hand. "Toots is first-rate stuff," I used to think, and I purred accordingly, for I never was an ungrateful cat. This was in the dining-room, and in the morning. Later in the day "Toots" was served in the drawing-room. It was between these two periods, I remember, that one day I found myself in the larder. Why I went there, puzzled me at the time; for if there is anything I hate it is a chill, and there was a horrid draught, a window pierced with tiny holes. I followed the cook in. For some mysterious reason I felt on the tip-toe of expectation. An inward voice seemed to murmur, *Toots!* Regardless of the draughts I sprang on the shelf close under the window. And there was such a dish of cream!

At this moment I heard my young mistress's voice in the distant passages.

"Toots! Toots!" said she.

"I've got plenty," purred I, lifting my head to speak, by a great effort.

"Toots! Toots!" she miowed on, for she wasn't much quicker witted than the rest of her race.

"No, thank you," thought I; "and if you want five o'clock toots for yourself, I advise you to come here for it."

I was polishing the glazed earthenware with the family skill, when I became aware that the house was resounding to the cry of "Toots!"

"Toots! Toots!" squeaked the housemaid.

"Toots! Toots!" growled the elderly butler.

"Miow," said I; for I had finished the cream.

The cook opened the door. Perhaps it was because she had no cream to whip, that she tried to whip me. Certainly, I had reason to be much confused

in regard to the meaning of the word "Toots." In the soft voice of my mistress it always seemed to mean cream; now it seemed to mean kicks, blows, flapping dish-cloths, dusters, pokers. By a sudden impulse of affectionate trustfulness, I sprang straight into my mistress's arms for shelter. This was my first lesson in honesty, and it was also the beginning of that train of reasoning in my mind, by which I came to understand that when people called "Toots" they meant me.—*From Juliana Horatia Ewing's "Melchior's Dream and Other Tales."* *

THE BROWN LICHEN.

With dusky fingers clinging to the stone,
Through summer's languid days and lovely nights,
Through autumn's chillness and the spring's delights,
The lichen lives in grimmest state alone.

The spicy summer breezes o'er it go,
But from its nun-like breast win no perfume;
Brown bees, gold-dusted, seek some flower's bloom,
Nor pause above it flitting to and fro.

The snail glides over it with solemn pace;
The cunning spider in it spins her snare;
But, be its tenants either foul or fair,
The lichen naught is troubled in her place.

The fays full oft in splendid state go by,
And elfin laughter thrills through all the air,
"What cheer, Dame Lichen, grave and debonair?"
To them vouchsafes the lichen no reply.

We pluck among the crannies of the stone
The wild flowers, purple, golden, or sweet blue;
But both in nature and in friendship too,
We leave the grim brown lichen quite alone.

—*From Arlo Bates' "Berries of the Brier."*†

OPTIMISM.—If Emerson preferred the present to the past, so, too, he thought that the future was to excel the present. He saw a constant progress in the relation of men to the world, and to one another. Everywhere throughout his writings this sentiment crops out. He finds the Malthusian theory and he exclaims: "Civilization mounts and climbs. Malthus, when he stated that the mouths went on multiplying geometrically and the food only arithmetically, forgot to say the human mind was also a factor in political economy, and that the augmenting wants of society would be met by an augmenting power of invention."

Having a large cheerful nature, he was entitled to meet firmly certain views of life, which, to others of less bouyant disposition, brought sad conviction and despair. Amid every suffering, he could still abstract himself enough to see, that every pain was the direct effect of some offended beneficent law. Death even, which scarcely can be said to be the result of the voluntary action of man, he thus conceives of in his "Threnody":—

"When frail nature can no more,
Then the Spirit strikes the hour;
My servant Death, with solving rite,
Pours finite into infinite."

With such a view of events, he could proceed from Nature to God, and still believe that God was all-good, and that there was a divine law in, and throughout, the Universe. Man finding this possible, could work for the realization everywhere, of the unity between man and the divine power. "Hitch your wagon to a star" could become a principle of action.—*From William F. Dana's "Optimism of Emerson."*‡

TACT.—One of the most desirable possessions for any person young or old, is tact—a power of moving on through life without constantly coming into collision with people and things and opinions. And yet no rules were ever laid down by which anyone can learn to acquire tact. It is rather the natural result of a disposition to make people with whom we are associated, comfortable and happy, since in order to do this we must constantly guard against arousing antagonisms or wounding the susceptibilities of those around us. The word is closely allied to the word *touch*, and a person who has good tact is really one who can touch people gently, carefully, kindly, in all the relations of life. Behind the best tact lies the wish to be kind and to make people comfortable and happy, to avoid wounding and irritating; and so it is true that the basis of true tact is after all, the moral sentiment.—*From Helen Ekin Starrett's "Letters to a Daughter."* ‖

MODELS.—Almost always an artist depends greatly upon models, which he obtains in one way or another, going perhaps, if he live in one of the largest cities, to the "Italian quarter" where picturesque people abound, watching for the face or figure which seems to embody some artistic idea, and which comes to him by many a happy chance.

In Paris it is a well-recognized trade to "pose" in the studios; and one finds there, and in Continental cities generally, a number of men and women who have trained themselves to take any pose which an artist may require, and to hold it an incredibly long time. I remember an Italian model who prided himself upon this capacity, and I have often seen one stand in a difficult or painful position for nearly an hour without perceptible motion. When Munkacsy, the famous Hungarian painter, was making his picture of the "Crucifixion," the model, who was suspended by cords in his studio, frequently fainted from fatigue; and the painting was achieved by pain and struggle on the part of model and artist alike.

Especially in portraiture one is obliged to work from the living object. Once in finishing the portrait of a baby, I could not recall with certainty the movement or curve of its eyelid. The child lived a long way off, and I went to find it. It was asleep; but waking, for a moment looked at me; I saw the line I needed and returned—having traveled ninety miles to see the expression of a little eye, which was not exactly like any other eye, and which was essential to the truth of the portrait.

The painting of groups of figures involves great study and labor. Sometimes artists make little wax or plaster models, which they use for preliminary sketches; this plan was practiced with great success by Tintoretto.

To paint landscapes one must go out of doors and study all that is going on there. The French Millet painted the scenery that he found within half a mile of his own farmhouse; his models were the unconscious peasants going about their tasks, hoeing and harvesting, washing and baking, planting seed and gathering grain. Hamerton tells of a glass tent from which he could look forth on all sides and work securely.—*From Sarah W. Whitman's "Making of Pictures."* *

PROHIBITION RIGHT.—In this country the people are the government. At least this is the theory, and the theory commends itself to the approval of all loyal citizens. The people are the source of power. The voice of the people, expressed in lawful ways, gives form, and substance, and potency to the law. The voice of the majority is the voice of the people. When that voice is stifled or suppressed by party or faction or the clamor of the few, the government is perverted. The assumption is that intelligence rules—an assumption that can be made good when the intelligent assert themselves, but one that fails when ignorance and vice or sensuality are allowed to dominate, as they often do in the assemblies of the people where the policies of the parties are initiated. "Eternal vigilance is the price of liberty," and the price of good rule by majorities, as well. If saloons and men force their baneful theories into dominance in the name of liberty, it is because the people sleep while the machinery of parties yields to the sway of those whose selfish interest keeps them alert. Government by the people and for the people is realized only when the honest convictions of the majority are embodied in the constitution and statutes, and respected and enforced in the spirit of their enactment.—*From S. M. Merrill's "Outline Thoughts on Prohibition."*†

IMAGINATIVE IMPRESSIONS.—I am very susceptible to such impressions; and besides the sort of spasm of imaginative interest sometimes given to me by certain rare and eccentric personalities, I know nothing more subduing than the charm, quieter and less analytic, of any sort of complete and out-of-the-common-run sort of house. To sit in the room like the one I was sitting in, with the figures of the tapestry glimmering gray and blue and purple in the twilight, the great bed, columned and curtained, looming in the middle, and the embers reddening beneath the over-hanging mantelpiece of inlaid Italian stone work, a vague scent of rose-leaves and spices, put into the china bowls by ladies long since dead, filling the room, while the clock down stairs sent up, every now and then, its faint, silvery tune of forgotten days;—to do this is a special kind of voluptuousness, peculiar and complex, and indescribable, like the half-drunkenness of opium or hashish, and which, to be conveyed to others in any sense as I feel it, would require a genius, subtle and heady, like that of Baudelaire.

Gradually the embers grew paler; the figures in the tapestry more shadowy; the columned and curtained bed loomed out vaguer; the room seemed to fill with grayness; and my eyes wandered to the mullioned bow-window, beyond whose panes, between whose heavy stone-work, stretched a grayish-brown expanse of sere and sodden park grass, dotted with big oaks, while far off, behind a jagged fringe of dark Scotch firs, the wet sky was diffused with the blood-red of the sunset. Between the falling of the raindrops from the ivy outside there came, fainter or sharper, the recurring bleating of the lambs separated from their mothers, a forlorn, quavering, eerie little cry.—*From Vernon Lee's "A Phantom Lover."*‡

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*Melchior's Dream, and Other Tales. By Juliana Horatia Ewing. Boston: Roberts Brothers. 1886.

†Berries of the Brier. By Arlo Bates. Boston: Roberts Brothers. 1886. Price, $1.00.

‡The Optimism of Emerson. By William F. Dana. Boston: Cupples, Upham & Co. 1886.

‖Letters to a Daughter. By Helen Ekin Starrett. Chicago: A. C. McClurg & Co. 1886. Price, 50c.

*The Making of Pictures. By Sarah W. Whitman. Chicago and Boston: Interstate Publishing Co.

†Outline Thoughts on Prohibition. By S. M. Merrill. Cincinnati: Cranston & Stowe. 1886.

‡A Phantom Lover. By Vernon Lee. Boston: Roberts Brothers. 1886. Price, 50c.

SUMMARY OF IMPORTANT NEWS FOR SEPTEMBER, 1886.

HOME NEWS.—Sept. 1. Earthquake shocks along the Atlantic coast.——Decrease of the national debt, $10,627,013.

Sept. 3. New York Central freight train wrecked at Marcellus, N. Y. Loss, $150,000.

Sept. 4. $100,000 relief money sent to the suffering people of Charleston.——The Apaches of Arizona surrendered as prisoners of war.——Destructive fires at Ashland and Peoria, Ill., and Pittsburgh, Pa. Twenty acres of buildings and lumber burned in Zilwaukee, Mich. $200,000 worth of railroad sheds and cars burned at Jersey City.

Sept. 5. Death of General Lloyd Aspinwall.

Sept. 9. Opening of the third annual Industrial Exposition at St. Louis.

Sept. 15. A call issued by the Treasury Department, for $15,000,000, 3 per-cent bonds.——Accident on the Nickel Plate Railroad. Nineteen persons killed.

Sept. 17. A hurricane passed through parts of Illinois, Indiana, Wisconsin, and Michigan.——First National Convention of Anti-Saloon Republicans met in Chicago.

Sept. 18. Meeting of the governors of the thirteen original states, in Philadelphia.——Cyclone at Joliet, Ill.

Sept. 20. Commissioner of Pensions reported the amount paid for pensions during the year $63,797,831.——Terrible storm at Alden, near Wilkesbarre, Pa., destroying public school and other buildings.

Sept. 21. The sealers in Alaska sentenced.

Sept. 22. Three severe earthquake shocks in South Carolina and Georgia.

Sept. 23. Death of Col. Charles Gordon Greene, formerly editor of the *Boston Post*; and death of John Esten Cooke, the Virginia author.

Sept. 30. Explosion of powder mills at Bay Chester, N. Y. Several buildings entirely demolished.

FOREIGN NEWS.—Sept. 1. Chinese massacre of seven hundred Christians in Se Chuen and Cochin.

Sept. 3. Triumphal entry of Prince Alexander at Sofia.

Sept. 4. Sir Edward Thornton, British ambassador to Turkey, recalled Sir Willam White appointed in his place.

Sept. 5. At Belfast a Protestant mob attacked policemen, and a Catholic mob attacked an Orange funeral procession.

Sept. 6. Prince Alexander formally notified the Czar and Sultan of his abdication.

Sept. 7. Banquet given to Justin McCarthy previous to his departure to America.

Sept. 9. Roman consulate in Pesth threatened with hostile demonstrations.

Sept. 11. Prince Alexander at his father's home in Darmstadt.

Sept. 12. The Czar on a journey from St. Petersburg to Poland, protected by a large body of soldiers.

Sept. 13. Meeting of the Bulgarian National Assembly at Sofia.——Rout of Mexican revolutionists.

Sept. 14. Agreement of European powers that there shall be no military occupation of Bulgaria.——Fifteen persons killed, and one hundred thirty wounded, in a panic in a church of Transylvania.

Sept. 15. Turkey demands the evacuation of Egypt by the English.

Sept. 17. Attempted assassination of the Roumanian prime-minister.

Sept. 19. Riots in Belfast and Liverpool.——Death of Earl of Dalkeith by the accidental discharge of his gun.——Great meeting of naturalists in Berlin.

Sept. 20. Rebellion among troops in Madrid.——Celebration in Rome of the sixteenth anniversary of the entry of Italian troops.

Sept. 21. Parnell's land bill rejected in the House of Commons by ninety-five majority.——Newfoundland vessel captured by the French at St. Pierre.

Sept. 24. English and French convicts murdered in Africa.——The schooner Moro Castle stripped at Porte Hawkesbury.

Sept. 26. Earthquake shocks at Smyrna and Constantinople.

Sept. 28. Ten thousand families in Ireland under notice of eviction. Seizure of the Ismelia palace in Cairo by order of the ex-Khedive.

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Rev. Edw. Everett Hale, D.D.,	Hon. John Hancock, LL.D.

The C. T. R. U. grows apace, and its membership already extends from Maine to California, with representatives in most of the states between. It is of interest and worthy of note that the first person to become a member of the new department lives at Biloxi, Mississippi; the next two enrolled, are teachers in a Massachusetts town, near Boston; and the last name is from Kansas.

"One touch of nature makes the whole world kin"; and one great movement like Chautauqua moves the world.

Our correspondence is getting voluminous, and is deeply interesting, and most instructive. No letters have a deeper meaning than those of teachers and lovers, and the inner soul is most intense when teacher and lover unite in one in the pursuit of "the true, the beautiful, and the good." The professional enthusiast whose soul as well as body is really "marching on" to better service and nobler conquests, is worthy of all admiration and praise; especially so, when the motive to higher endeavor is not and cannot be of the baser sort. Hence, we enjoy these missives, that like luminous lenses reveal the deep and the distant. And these thinkers are the readers, for the mind like the body gathers strength and keeps it only in the use of new, living, vitalizing, daily food. Such are inquirers after the blessings of the C. T. R. U.

But our first helps must be rendered to those who seek to know the *modus operandi* of this new thing—the C.T.R.U., and who come for advice as to books, course of study, etc. As Chautauqua now comes to the school teacher with a new blessing, it will take time for our great fraternity to learn all that it has to bestow in this department, opened with special gifts to all the guild. A few queries will be presented, that the answers may help many. We open our query box, and find the following questions:

Q. 1. I have heard of the C. T. R. U. Can any teacher join it, in any state?

A. Most certainly. The Union is a national affair. Yes, international already, for we have members in Canada, as well as in nearly all of the states and territories of the United States. All grades of teaching are welcome, and our League will be a bond of union, which may prove of great value to all.

Q. 2. What is The Socratic League?

A. It is a new teachers' organization, into which each member of the C. T. R. U. enters, on enrollment. When the membership is sufficiently large in any locality, meetings will be held, badges obtained, social, literary, and other exercises enjoyed, and a professional spirit will be

cherished and encouraged. The bulletin of the C. T. R. U. sets forth its aims more fully. The motto of the society is the translation of a saying of Socrates, "*Give me the inner beauties of the soul.*"

Q. 3. What are some of the most practical points of the C. T. R. U.?

A. (1.) The C. T. R. U. is a national organization for teachers' reading and study.

(2.) The courses of reading are comprehensive, embracing the subjects with which all teachers should be familiar. The subjects are so arranged, that teachers of all grades and attainments can easily do the work assigned, using their option as to books to be read.

(3.) The best professional books extant are recommended, and the members are allowed the largest freedom in choosing their text-books for each department of study.

(4.) The course of reading may be begun at any time, and be carried on individually or in circles, with no requirement as to the amount of daily readings.

(5.) Members who have read one or more books under any subject of the C. T. R. U. course in other circles, will be credited with such reading on their certificates, and may proceed in other departments by special permission of the faculty.

(6.) Members of the C. T. R. U. on joining will be admitted to the Socratic League, a teachers' professional guild within the Chautauqua University, and will receive gratuitously the bi-monthly leaflets of the League, as special contributions to teachers' literature, written by some of the most eminent educators.

(7.) At the completion of the first year's course of reading of the C. T. R. U., each member will receive a certificate; and, if an examination is taken, the gold seal of the Chautauqua University will be added. Seals will be added for the work of each of the two succeeding years, and the gold seal will be affixed on an examination, and the Pedagogical Diploma of the university will be given on completing the full course.

(8.) Persons joining the C. T. R. U. at once, will be able to graduate in the class of 1889 at Chautauqua, or at one of the other summer assemblies.

Q. 4. Can a member of a state reading circle join the C. T. R. U.?

A. Members of state circles can become members of the C. T. R. U. by the payment of fifty cents, in addition to the fee paid to their own circle. All reading done in state circles is credited to the member, as though read in the C.T.R.U.

Q. 5. What exercises would you recommend for a C.T.R.U. Circle?

A. In substance the exercises may be the same as in the C. L. S. C. After the circle is formed, officers elected, such as a president, a vice-president, a secretary, and a board of education or a committee on program, the circle should decide as to the frequency of meetings, and the method of conducting them. The following program was successfully carried out at a meeting we attended not long since:

a. Roll call.

b. Introduction of new members.

c. A short paper on Horace Mann, on his relations to the Normal Schools of America.

d. Discussion on paper, for fifteen minutes.

e. A talk on Primary Map Drawing.

f. A report on a primary lesson in Physiology in a Boston school.

g. Reading a chapter from D. Arcy Thompson's "Day Dreams of a School Master."

h. Social, and adjournment.

We shall be glad to hear from members, giving the order of exercises adopted in local circles, that we may give the benefit of these to the whole membership.

The next query contains a most encouraging statement:

AUBURN, MAINE.

We have twenty-five teachers in the city schools of Auburn. Of that number twenty-five have joined C. T. R. U. Can you beat our record?

W. W. STETSON.

Our answer is in the following from the nearest neighbor to the Pine Tree State:

FRANKLIN FALLS, N. H.

I have to report that every teacher in Franklin has decided to become a member of the C. T. R. U., and enter upon the course of reading. I hope many other towns in the state will do equally well. Very truly,

W. A. ROBINSON, Supt. of Schools.

Before the year closes we hope to report many towns doing as well. None can do better.

SPECIAL NOTES.

TEMPLE STUDENTS.—We have not room to publish the names of all those who graduated in the Boys and Girls Meeting, and in the Intermediate Class at Chautauqua last summer; but we give the names of those who took prizes, and are especially honored.

BOYS AND GIRLS MEETING.

Prize Students.

First: Alice Snyder, Coshocton, Ohio.
Second: Flossie Pomeroy, Adrian, Michigan.
Third: Grace Welles, Englewood, Illinois.

Special Honorable Mention.

Louise Dodge, Adrian, Michigan.

Special Mention.

Lillian E. Hart, Sherman, New York.
Eddie Mead, Union City, Indiana.

INTERMEDIATE CLASS.

First Prize: Miss M. Agnes Kerr, Bridgeport, Conn.
Second Prize: Miss Hattie P. Marsh, New Haven, Conn.
Third Prize: Miss Ella M. Moll, Oberlin, Ohio.